BLUEPRINT 2040

BRYAN ★ TEXAS

WEST AREA PLAN

TABLE OF CONTENTS

Leonard Road in Bryan's ETJ

INTRODUCTION

Getting Ahead of the Growth

Blueprint 2040 divides Bryan and its ETJ into 19 distinct areas based on conditions, opportunities, and character. The resulting neighborhood assessment yielded priority areas and the Plan recommends creating individual area studies for the priority neighborhoods. The West Area (Area 3 shown in **Figure 1** below) is the number two priority area identified in the Specific Study Area Map within the Land Use chapter. This West Area study is intended to be a template for future area studies as well as a roadmap for the west Bryan area and its ETJ.

The key element of this study is to proactively create land use and transportation strategies to ensure orderly development consistent with the public's vision. Given the anticipated population growth, undeveloped condition of the surrounding land, and geographic location near expanding economic drivers, the West Area is well positioned for expansion. The purpose of this plan is to assess at a micro level the appropriate land uses, transportation patterns, infrastructure, zoning and branding of the area.

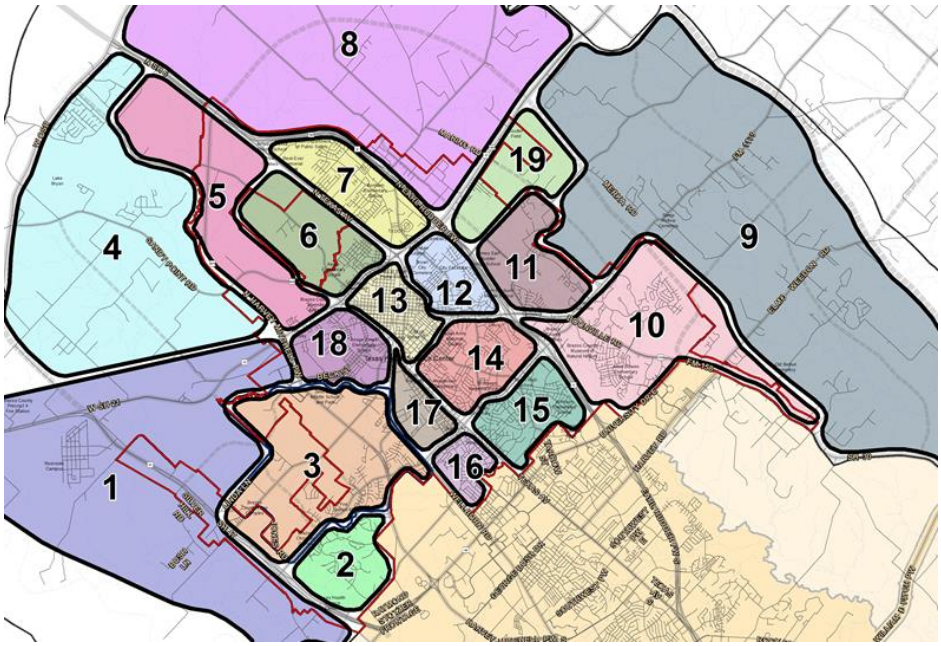
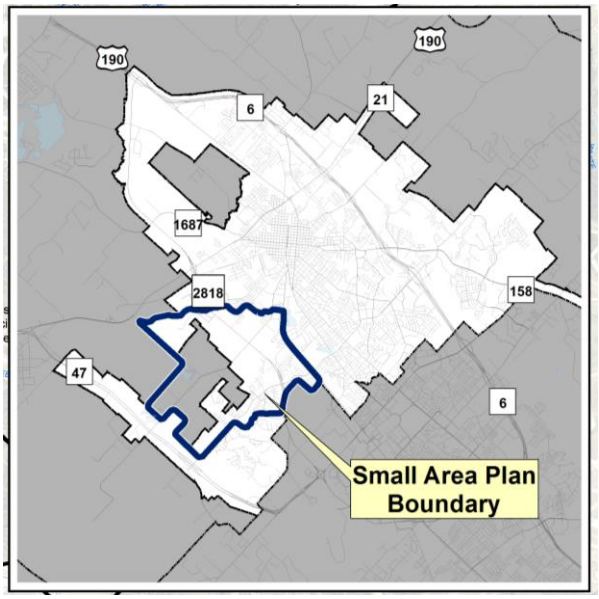


Figure 1: Specific Study Area Map

Study Area and Context within the City

The West Area Plan encompasses 4,546 acres as shown in **Figure 2**, lying well beyond the 95-acre site of the core mixed use opportunity. The area is bounded by the Cottonwood Branch floodplain to the north; W. Villa Maria Road, Turkey Creek and the City Limits to the south; Wellborn and Finfeather Roads to the east, and Jones Road, Higgs Drive, Linda Lane and the City Limits to the west.



Although Bryan's early growth patterns were historically to the south and east, the City has recently experienced significant growth to the west. Spurred by transportation improvements such as the opening of State Highway 47 along with road and rail grade separation projects, the recent BioCorridor developments such as The Traditions Neighborhood, TAMU Health Science Center, and ATLAS are evidence of Bryan's more recent major growth west.

The Brazos County Expo Center on Leonard Road, while not located within the study area, represents another potentially significant influence upon future development in the area. The expanding demand for this facility and its capacity to host large events requires special consideration to the transportation network.

The existing transportation network provides a great starting point for development in the area. State Highway 47 and Harvey Mitchell Parkway (FM 2818) run relatively north-south and Leonard Rd (FM 1688) and W. Villa Maria (FM 1179) east-west. In addition to their ability to carry traffic through the plan area, business development along these roadways will continue. It will be important to manage access to and plan for improvements to these facilities, such as ensuring that sufficient right-of-way is preserved for future expansions. As all of these roadways are TxDOT facilities, TxDOT will therefore be an important partner for future planning.

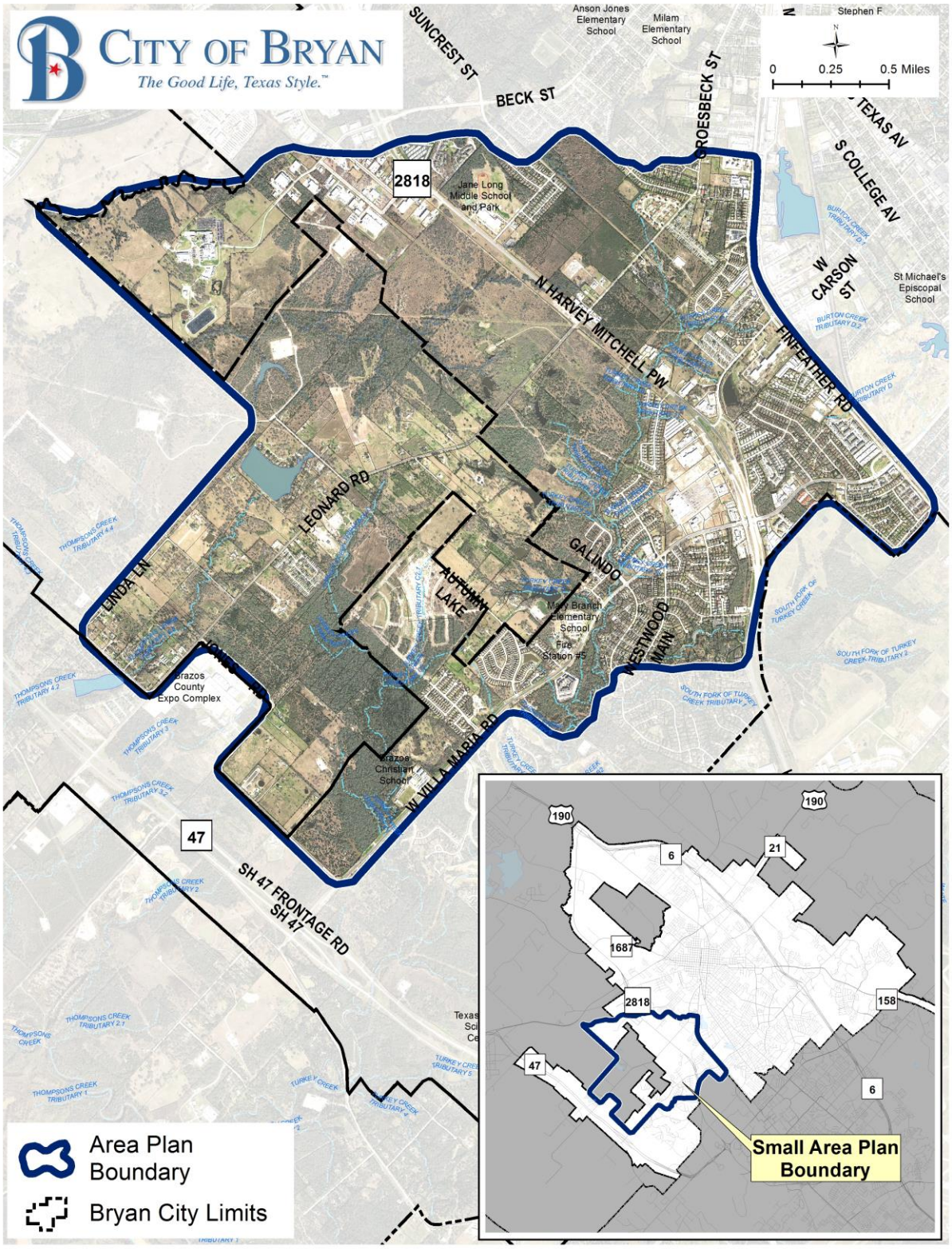


Figure 2: West Area Context Map

AREA ASSESSMENT

The study area is predominantly vacant and rural in nature, providing ample room for development growth. The area's existing transportation network can support the early stages of orderly growth in the area. From the onset of development, medium and long range transportation planning and right-of-way acquisition will be important to the success of development around a mixed-use development core. While the study area overall is relatively flat, there is some variation in the topography along Turkey Creek which should be preserved and highlighted as a natural amenity. Preservation of natural features would likely encourage more upscale development to occur in adjacent areas, as seen in the Traditions and Dominion Oaks neighborhoods. To that end, development standards, ensuring such features are protected, are important to implement prior to development.

Existing Land Use

Table 1 shows a breakdown of the existing land use. **Figure 3** illustrates existing uses within the study area which is mainly located along major corridors, such as Harvey Mitchell Parkway (FM 2818) and W. Villa Maria Road and consists of a mixture of traditional residential subdivisions, duplexes, apartments, and retail uses. At the time of this study, the most intense development within the study area is a Walmart (anchored by 25 acres of additional retail pad sites) located at N. Harvey Mitchell Parkway and W. Villa Maria Road. The majority of the area around the planned mixed-use areas is vacant.

Existing Land Use	Acres	Percent of Total Acreage	Percent of Developable Land
Two-Family (Duplex)	83.6	1.8%	4.4%
Commercial	147.2	3.2%	7.7%
Industrial	205.4	4.5%	10.7%
Multi-Family	110.0	2.4%	5.8%
Manufactured Home	78.3	1.7%	4.1%
Office	11.7	0.3%	0.6%
Open Storage	7.6	0.2%	0.4%
Parks/Open Space	74.9	1.6%	3.9%
Public/Semi Public	116.0	2.6%	6.1%
Retail	47.9	1.1%	2.5%
Right of Way	432.2	9.5%	22.6%
Single Family	583.9	12.8%	30.6%
Townhome	12.4	0.3%	0.6%
Existing	**1,911.1**	**42.0%**	**100.0%**
Vacant	**2,635.3**	**58.0%**	-
Total	**4,546.4**	**100.0%**	-

Table 1: Existing Land Use

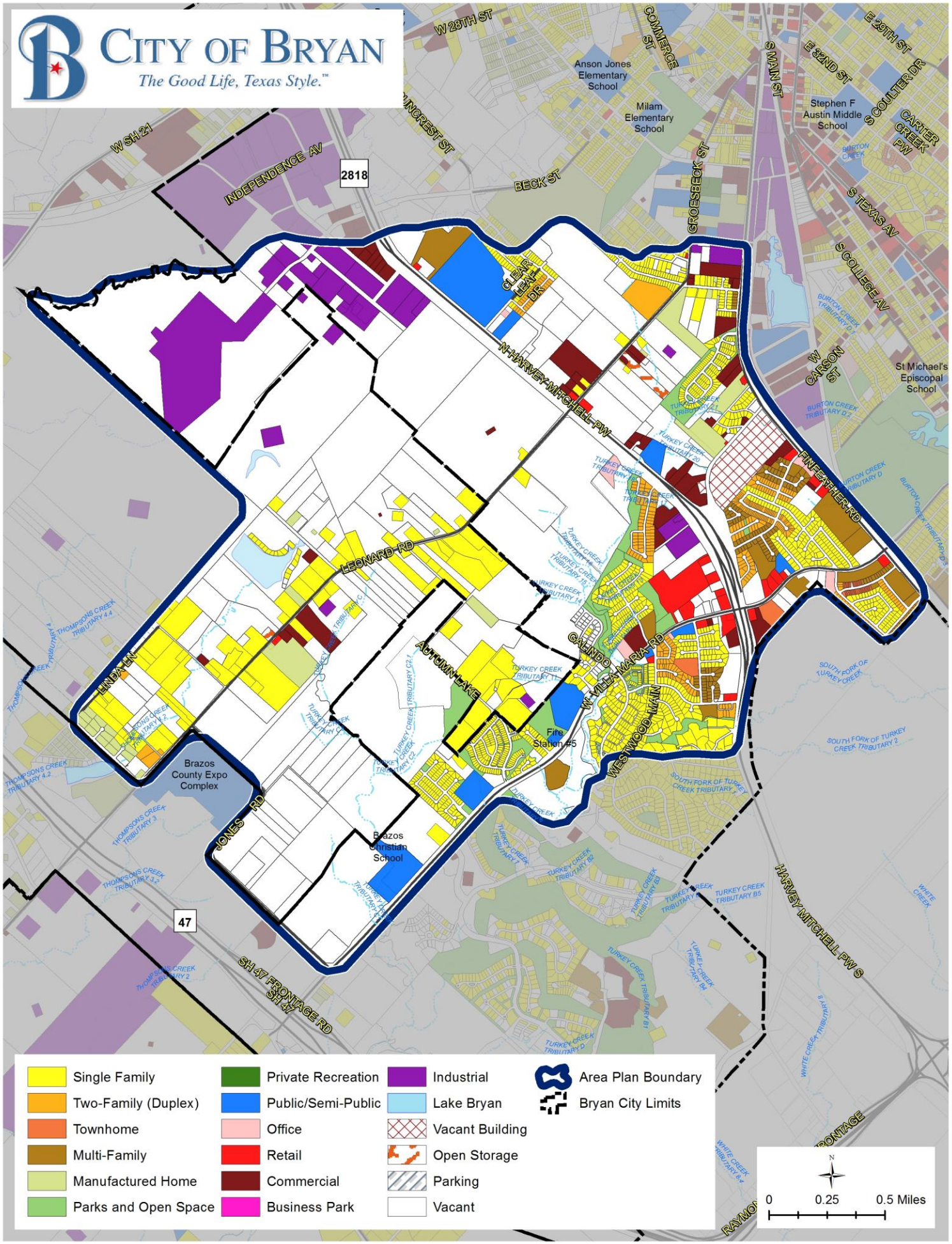


Figure 3: Existing Land Use Map

Developed Land Use

A graphic depiction of the existing land use can be seen in **Figure 4**. Of the 4,500 acres within the study area, approximately 1,900 acres (42 percent) is developed in some capacity. Single-family residential remains the largest land use accounting for 30 percent of developed land. Right-of-way remains the second largest category accounting for approximately 22 percent of developed areas, and Industrial is the third largest developed land use accounting for nearly 11 percent. Each remaining use accounts for less than 8 percent of the developed land. It is important to note that as a development plan for the area is adopted and implemented, redevelopment should significantly change some of the development patterns seen in the area today.

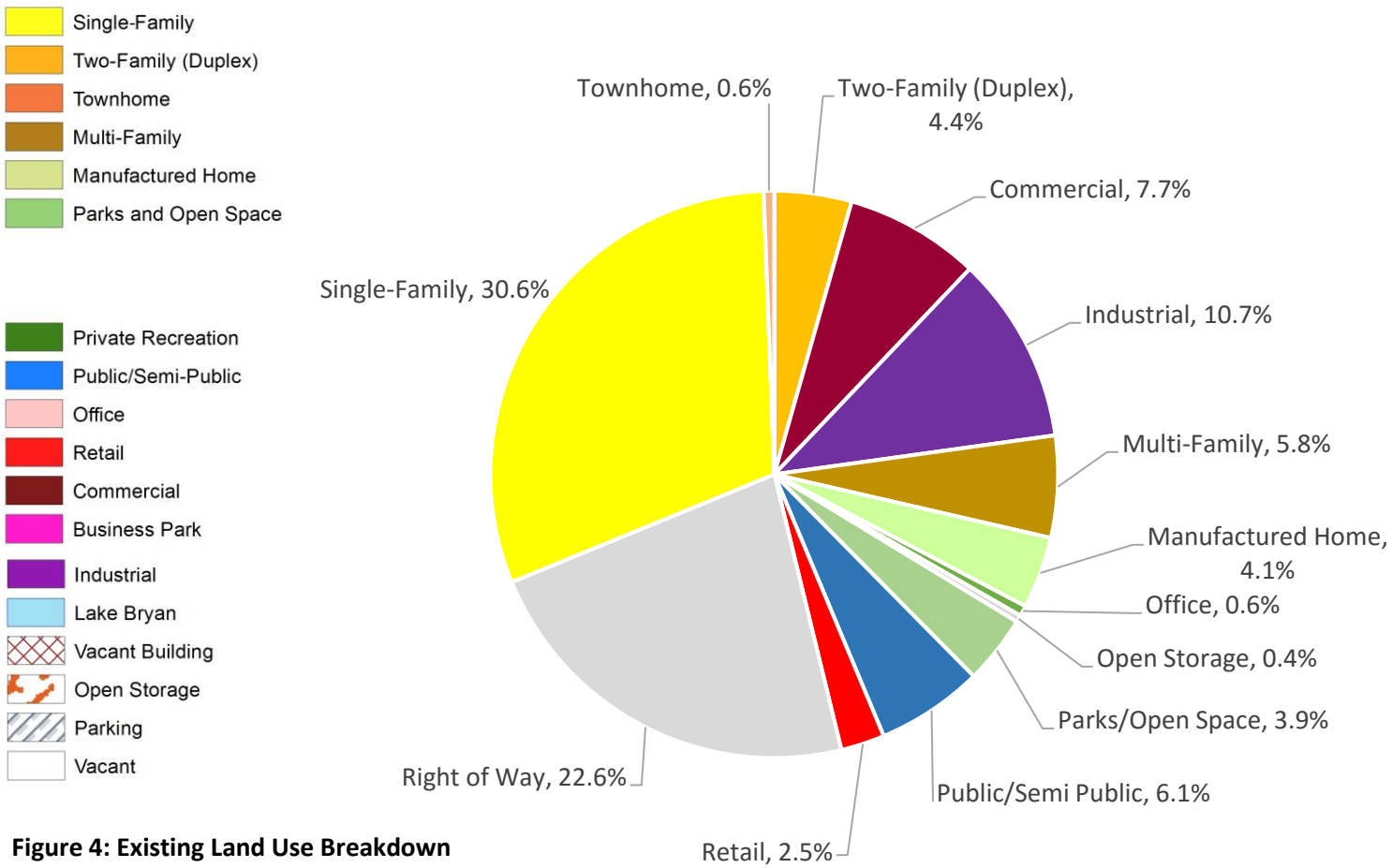


Figure 4: Existing Land Use Breakdown

Study Area Existing Land Use Snapshot

Retail

Multi-family

Industrial

Manufactured Home

Public/Semi-Public (Bryan Fire Department)

Single-Family Residential

Area Challenges

Uncontrolled Growth

A large portion of the land within the study area lies outside of the Bryan city limits but within the City's Extraterritorial Jurisdiction (ETJ). Future growth will proceed unregulated and in a manner that would not follow patterns of efficient and sustainable urban development unless the area is annexed (and therefore regulated) by the City of Bryan. Such circumstances could set a negative tone for the study area, particularly along the major corridors, and make it less desirable for the types of development outlined in the Future Land Use Plan. It is imperative that the City proactively work to bring key areas into the city limits to help ensure that the overall development plan vision is achieved.

The true potential of the area will not be realized without a coordinated and cohesive land use strategy. The area presents an opportunity to grow Bryan in a positive manner by including a mixture of housing products and retail areas.

Area Opportunities

New Residential Growth

A strong trend of new detached, single family residential development has been occurring in Bryan. The potential for new residential growth has caused the western portions of Bryan to become an attractive area for investment. This is fueled in part by robust economic conditions, the general growth of the area population, and availability of direct access to all City utilities. Many of the vacant parcels found in the study area are large, something that is attractive to large-scale residential developers. With continued area growth, the study area will be optimal for quality residential subdivisions.

New Retail Growth

State Highway 47 and Harvey Mitchell Parkway (FM 2818) will continue to increase in their regional prominence, particularly as residential growth occurs and the BioCorridor develops over the coming decades. These areas should be preserved for retail development and services which will enhance the desirability of West Bryan. Industrial development would not be appropriate along either corridor within the study area.

New Urbanist Mixed-Use Development

The area presents opportunities for New Urbanist mixed-use development. While the City of Bryan's Zoning Ordinance includes a mixed-use classification, it serves as a temporary designation for areas in transition and is not intended to be a permanent designation. This differs significantly from the urban planning industry definition or the intent of New Urbanist mixed-use. In the case of this Small Area Plan, mixed-use is defined as higher density development with an integration of commercial, retail, and residential uses.

Downtown Bryan is a great example of a mixed-use development in Bryan. Its historical context blended with the new uses brought about by its recent rebirth has naturally created a blend of uses in a desirable framework, one that attracts people from across the region. While the traditional ambiance of Bryan's historic downtown can't be replicated, areas for mixed-use development should be a part of the overall growth framework. The ATLAS Texas development at Traditions will be a destination center of activity in the southwestern area of Bryan that incorporates a mix of land uses within its approximately 100-acre site. Other mixed-use activity centers should be incorporated within the study area. The intersection of Leonard Road and Harvey Mitchell Parkway is a prime location; particularly as the area matures and the West Area develops. Other intersections along Leonard Road, such as Autumn Lake will make desirable locations for mixed-use development.

Existing Transportation Network

As the West Area grows and develops, it will become a significant contributor to high volumes of vehicular traffic within the area. Much of the land is this study area is not developed and there is ample opportunity to work with developers to minimize parking and congestion issues. It is imperative that the roadway network be designed with the future population of the West Area in mind to alleviate future congestion.

One of the greatest threats to the vitality of the area in the future is the transportation network. The study area has an existing framework of roadways that should be built and/or expanded to meet future development needs, and create an effective and highly mobile transportation framework. Without a special focus on transportation and mobility, development patterns will likely prove to be roadblocks to future progress. The existing major roadways adjacent to the study area are TxDOT facilities. Therefore, TxDOT will be an important early partner in planning and implementing roadway improvements. The Bryan College Station Metropolitan Planning Organization (BCSMPO) will also be an important partner from a regional transportation perspective. Any future roadway network must efficiently link State Highway 47 and Harvey Mitchell Parkway, as well as W. Villa Maria Rd and Leonard Rd to provide regional access to the study area.

Corridor Characteristics

FM 2818 (Harvey Mitchell Parkway), FM 1179 (Villa Maria Road), FM 1688 (Leonard Road), and State Highway 47 are all owned and maintained by the Texas Department of Transportation (TXDOT). These roadways, shown in **Figure 5**, are important to the study area's growth and it will be important for the City to advocate and partner with TXDOT in the extension and enhancement of these key thoroughfares. **Figure 5** also identifies 2015 traffic counts. These counts, when compared to roadway classifications in **Figure 10** can provide insight to the City and State regarding roadway demand and capacity.

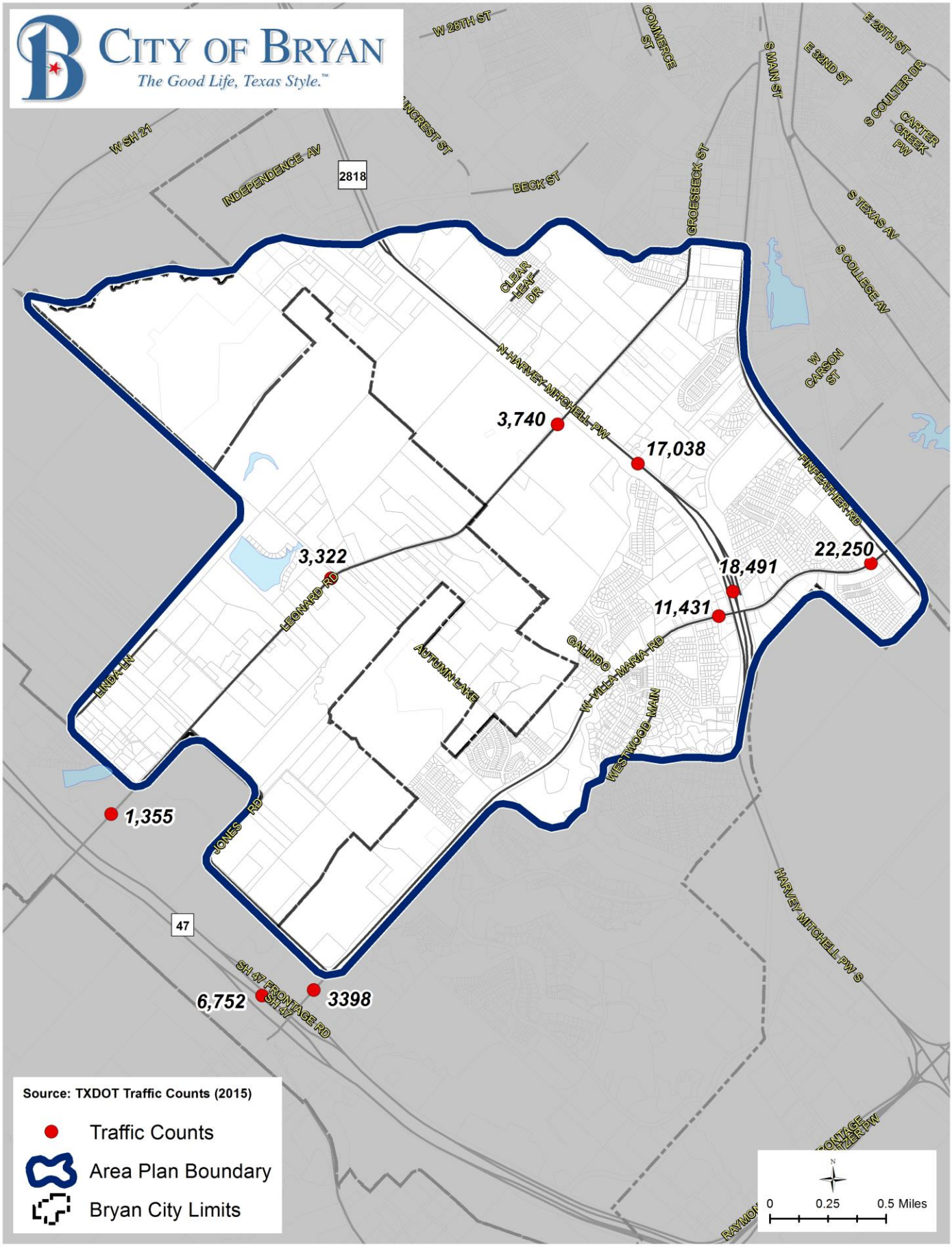


Figure 5: Study Area Traffic Counts

Harvey Mitchell Parkway

Harvey Mitchell Parkway (FM 2818) is the only north-south thoroughfare crossing through the study area and also the highest intensity traffic through the area. At its largest existing section, it is a divided roadway with two travel lanes, and left and right turn lanes on each side. Ultimate roadway configurations will take the roadway to a four-lane divided limited access roadway with a grade separated interchange at Leonard Road.

Leonard Road

Leonard Road (FM 1688) is currently a two-lane road with no median, shoulders, or curbs. It extends through the study area from State Highway 47 to Bittle Lane before becoming Groesbeck Street. Land is sparsely developed (with a rural feel) for the majority of Leonard Road; though there are pockets of residential areas. Most of the structures on Leonard Road, whether residential, commercial, or industrial, are manufactured or prefabricated. The existing configuration of Leonard Road will not be sufficient to handle the increase in traffic associated with the West Area and higher intensity development opportunities. Phased improvement of Leonard Road, from Finfeather Road to State Highway 47, should be planned and implemented (through coordination with TxDOT and the BCSMPO. Access management will be an important design feature when improving Leonard Road to efficiently and safely carry expected increased traffic volume. It is currently abutted by many private, non-conforming, substandard driveways which will impede the flow of future traffic. Finally, it should be clearly defined from the outset that Leonard Road, from State Highway 47 to Finfeather Road, will become a major community gateway on par with West Villa Maria Road. As a major gateway, it should be accorded appropriate amenities. Quality design and implementation from the beginning will prove more fiscally responsible than retrofitting later.

Villa Maria Road


Villa Maria Road

Villa Maria is a two-lane, shouldered road as it intersects State Highway 47. It expands to become a four lane thoroughfare, with center turn lane, curbs, sidewalks, and streetlights, as it goes east towards Bryan. This added capacity is important because the area supports several subdivisions, apartment complexes, an elementary school, and shopping center of big box stores near its intersection with FM 2818. This capacity continues through the remaining two miles of the study area where Villa Maria crosses under Finfeather Drive. As development continues, the roadway's four-lane context should be extended from its current terminus near Kimmy Drive to State Highway 47. Since the opening of State Highway 47 and the designation of the Villa Maria / Briarcrest Corridor as Bryan's central business district, Villa Maria has served as the primary western entrance into Bryan.

Physical Features Influencing Development

Natural Features

The watershed basins in the study area are shown in **Figure 6**. The predominant area of floodplain is found along the southern portion of the study area with Turkey Creek and its tributaries. Turkey Creek has a very narrow floodplain; as the banks of the creek are oftentimes steep and flows are contained in the channel or just outside of the banks. In order to maintain current creek shoreline and prevent erosion, it is recommended that the City protect the natural vegetation that flanks the floodway by establishing a creek buffer for development. These areas could serve as a considerable amenity throughout the area by incorporating open spaces and passive recreational trails. Turkey Creek continues southwest where it flows into the Brazos River. A second area of floodplain is located on the northern side of the study area in the Cottonwood Branch. This area of low-lying land serves as an optimal natural barrier to separate industrial activity occurring to the north from potential residential development to the south.

The topographic variations generally divide the study area into three drainage basins. The Burton watershed basin is generally located along the eastern boundary. The Cottonwood Creek watershed basin generally supports much of the industrial development in the northern area. The Turkey Creek watershed covers most of the area south of Leonard Road. The impacts of development to this watershed will be important. In particular, the impacts to stormwater runoff from additional impervious surfaces created by development within the study area. Flood mitigation within this watershed will be very important particularly as development occurs in the upper reaches of this creek. A regional stormwater management strategy, utilizing and highlighting the natural features of the land, should be developed for the study area. Such a system could serve as both an amenity as well as an incentive to large parcel development.

Man-Made Features

The city limits boundary covers most of the eastern and southern areas of the study area. However, much of the central area along Leonard Road is not within the city limits. As discussed previously, this limits the City's ability to control and regulate land use types and development standards.

A prominent man-made feature within the study area is Harvey Mitchell Parkway. Adjacent to this is a network of high pressure gas pipelines. The pipeline easements may provide opportunities to incorporate bicycle and trail facilities. The City might consider utilizing these easements and connect residential areas to natural areas like Turkey Creek Trail.

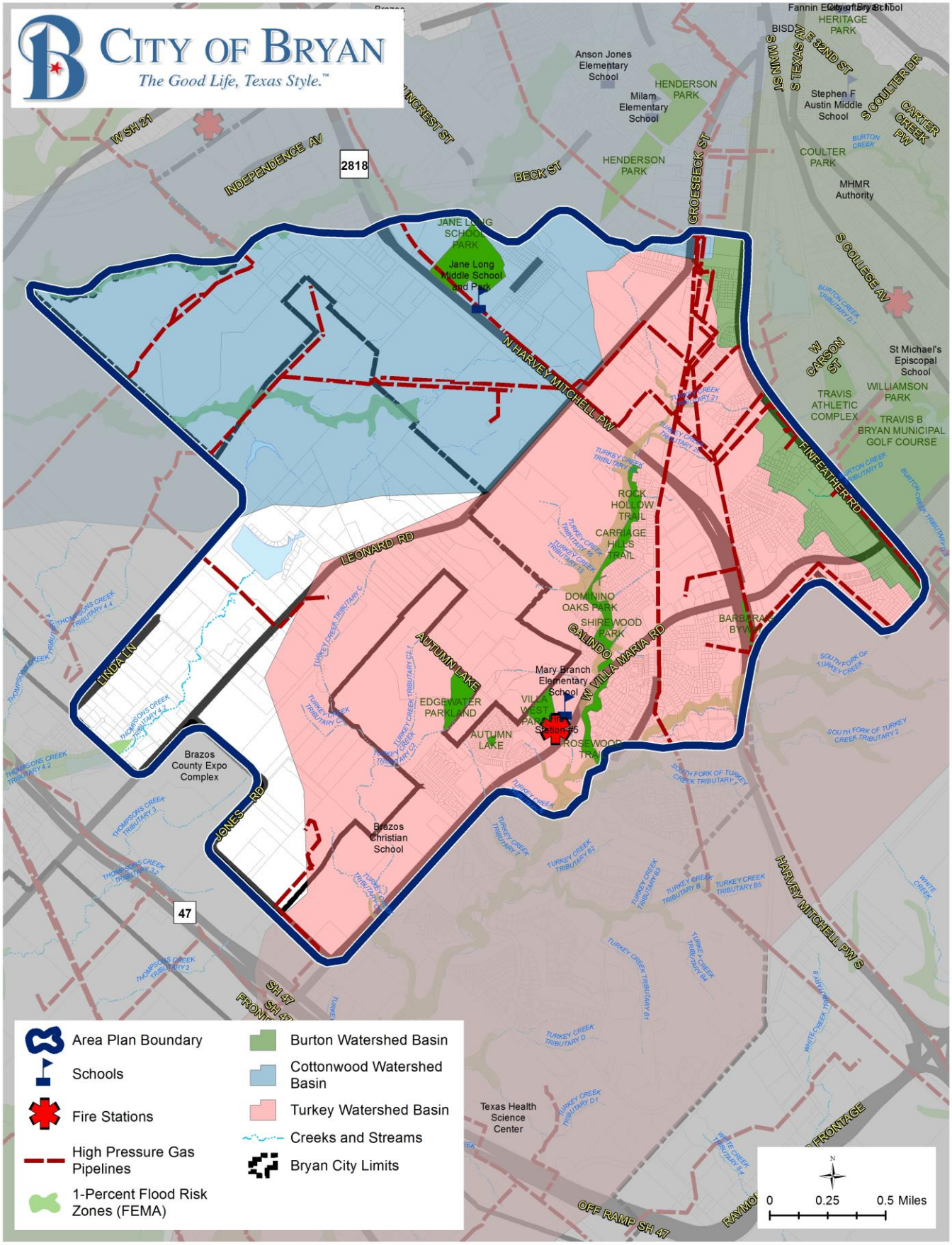


Figure 6: Study Area Physical Features Influencing Development

RECOMMENDATIONS

Future Land Use

The West Area Plan's Future Land Use Map reflects the development vision for the study area. (see **Figure 7**). As part of the Comprehensive Plan, the land use scenario presented in the map and text above are intended to serve as a guide for decision-makers to use when evaluating potential and proposed development in the area. Decisions concerning land use, including requests for change of zoning classification, extension or improvement of infrastructure, parks, and transportation decisions should all refer to the Future Land Use Plan in order to manage the growth in the area encompassed by the plan.

Land Use Opportunities

Commercial and retail development should be concentrated in key areas in an effort to make certain that development around the West Area is high in quality and meets the needs of Bryan residents. As a result, the Future Land Use Plan concentrates higher-intensity commercial uses and community services at major intersections. This creates commercial and retail nodes along major thoroughfares that capitalize upon the study area's planned activity generators - Texas A&M University Health Science Center, Brazos County Industrial Park and the BioCorridor. Mid-density development is generally located between pockets of high intensity use. From an area perspective, low-density use (mainly residential) comprises almost a third of the study area. About half of the proposed low-density residential area currently lies outside the limits of the City of Bryan. The following suggested additions to the land use framework are the most significant changes from Bryan's existing land use patterns.

Mixed-Use

A large area for mixed-use development is depicted on the Future Land Use Map. This mixed-use area is intended to leverage the highly visible location along Harvey Mitchell Parkway at Leonard Road. The addition of mixed-use opportunities will also increase the prominence of this location. It is envisioned that this area be designed with characteristics similar to Downtown Bryan - a walkable area with public spaces and strong sense of place. Residential apartments should be a component of the mix within this area. Auto-centric commercial development may be located along Harvey Mitchell Parkway as long as the core of the area remains oriented to the pedestrian.

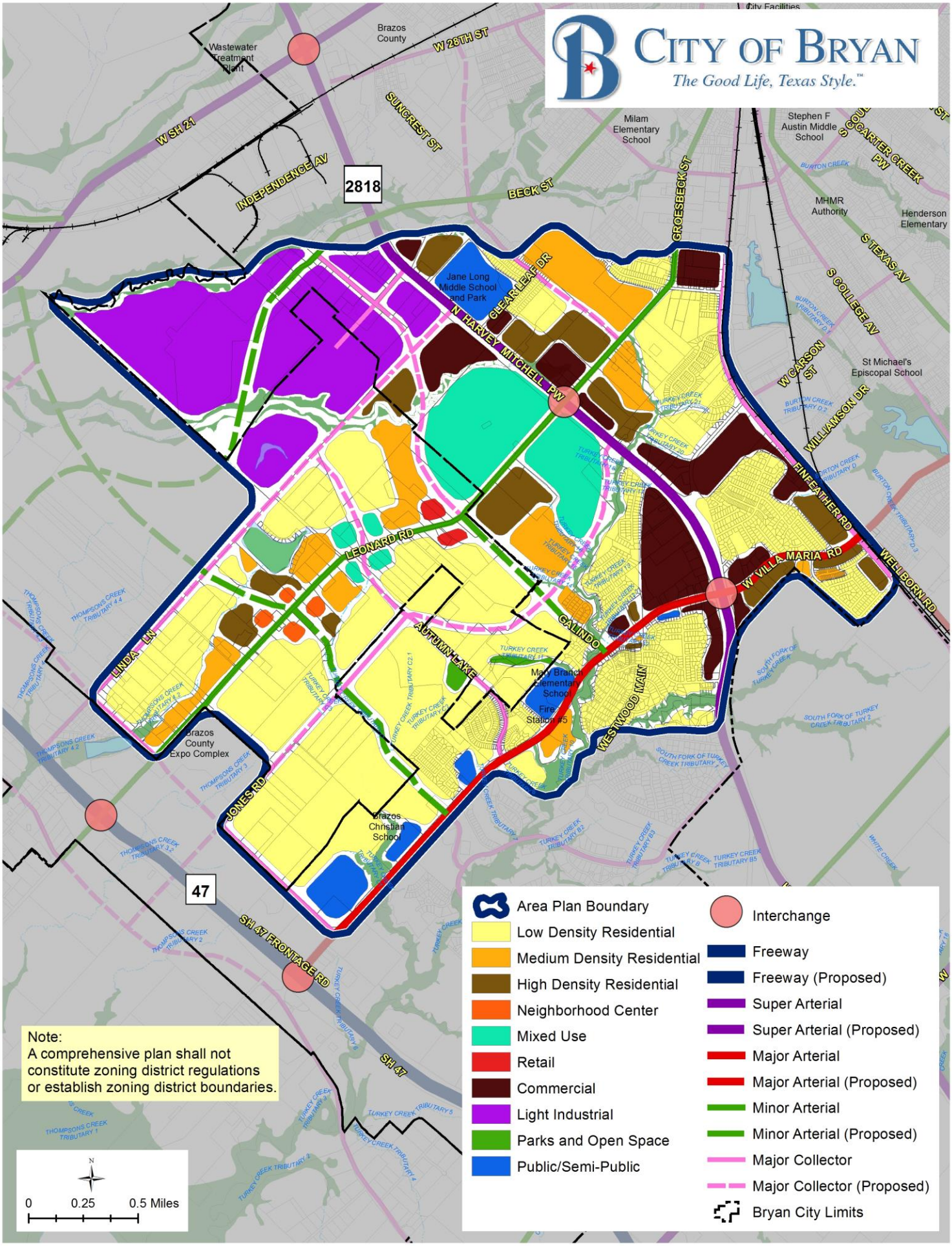


Figure 7: Study Area Future Land Use Map

Neighborhood Service

In contrast to strip-commercial development that defines many of Bryan's existing corridors, nodes of neighborhood service retail activity are strategically located throughout the Future Land Use Map. These nodes are primarily at key intersections within the area. They are intended to provide services to the neighborhoods in which they are located and are designed to be much less intensive in nature so that they can be effectively integrated into the neighborhood framework. These areas would include restaurants, dry cleaners, local shops, a bank branch, and similar low-intensity uses.

Market Assessment

The existing healthy growth rate of residential development, and the addition of higher intensity development in the West Area will undoubtedly spark development in the study area. All of Bryan-College Station is undergoing growth. The land around the identified mixed-use opportunities, being sparsely developed, has been projected to capture much of that growth. In 2015, the Bryan College Station Metropolitan Planning Organization (BCSMPO) projected that the ten Traffic Area Zones (TAZs) that make up the West Area would gain roughly 16,000 residents, 2,100 office workers, and 1,400 retail and service employees from 2015 to 2040; well within the planning horizon of this area plan. These market projections are based on data from the BCSMPO's 2015 25-year transportation plan, which projects growth by transit area zone for the entire region.

Assessment

A market assessment provides insight into the projected growth and demographics in an area, and land use demands associated with that growth. This is an important step in helping the community understand itself so that it can adequately plan for the future.

The West Area Future Land Use Map was developed independently of the BCSMPO projections. Upon analysis with projection software, Envision Tomorrow, it has been determined that potential development could far exceed what was projected by the BCSMPO. This indicates that growth demand, rather than space, is a limiting factor to development in the study area.

Traffic Area Zone	157	170	175	193	210
New residents	86	0	3993	2140	3423
New Retail and Service Employment	100	-31	543	99	207
New Office Employment	886	-1	23	5	1045
Residential Development Needs (1000s of sq ft)	62	0	2874	1540	2,464
Retail Development Needs (1000s of sq ft)	65	0	353	64.3	134.55
Office Development Needs (1000s of sq ft)	637	0	8	1750	665.75
Traffic Area Zone	**211**	**220**	**233**	**234**	**247**
New residents	0	0	0	3457	2841
New Retail and Service Employment	-1	553	0	343	-30
New Office Employment	31	275	49	6	-40
Residential Development Needs (1000s of sq ft)	0	-	0	2,489	2,045
Retail Development Needs (1000s of sq ft)	0	359.45	0	222.95	0
Office Development Needs (1000s of sq ft)	10	96.25	17	2.1	0

Table 2: 2040 Population, Employment, and Square Footage Projections

Table 2 shows that there is significant growth projected for the study area. The results suggest intense development pressure, especially for new housing in TAZs 210 and 234. These Transit Area Zones are depicted in **Figure 8**.

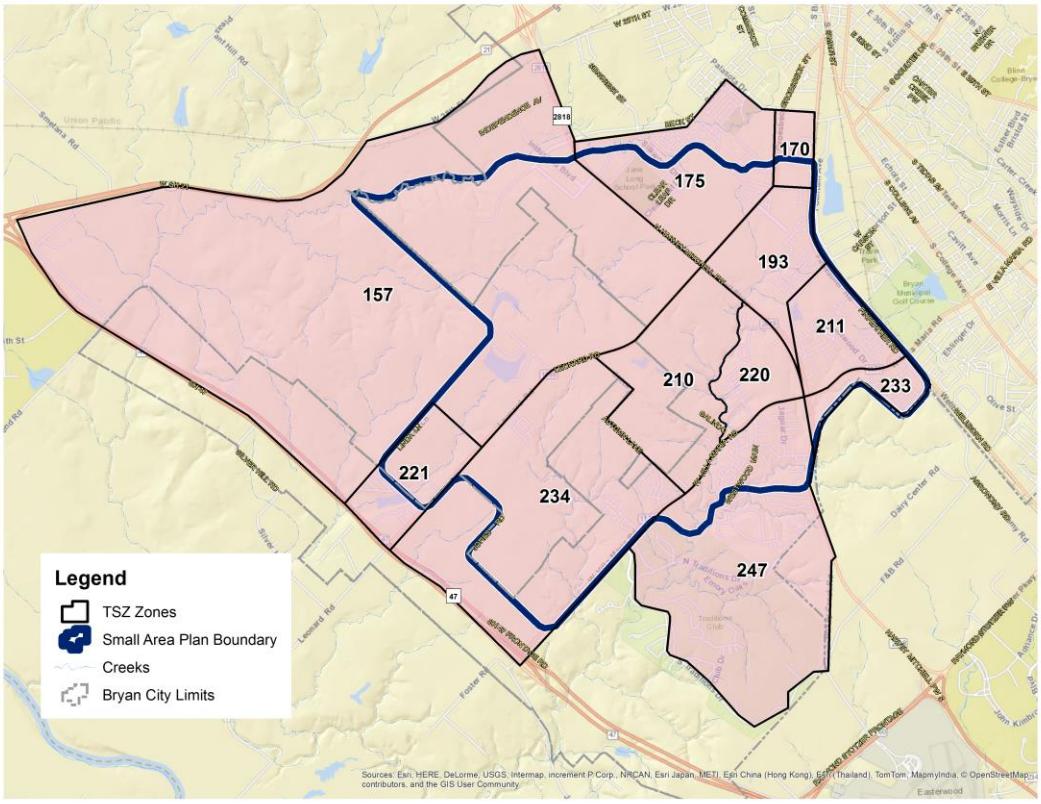


Figure 8: West Area and Surrounding Area Traffic Area Zones

Projections

As shown in **Figure 8**, six TAZs are completely within and four more are partially within the study area. The land use and growth projection modeling shows significant growth in the study area, especially in new residents: nearly 16,000 new residents are projected, more than double the current number. Some areas are projected to lose employment (such as TAZ 170) while others are projected for substantial employment growth (such as TAZ 157 and 210).

Projections for developed and undeveloped space demands were made based on this forecasted residential and employment growth. Existing development projections were calculated using current ratios of population to developed space. Bryan currently has one resident per 720 square feet of residential development, one retail worker per 650 square feet of retail and one office worker per 350 square feet of office space. The analysis for future growth suggests intense development pressure, especially for new housing in TAZs 175, 210, 234, and 247. Those four TAZs are all mostly undeveloped, so they should be able to absorb new housing.

The market assessment reveals that the study area has a large capacity for growth of residential, commercial and mixed use expansion. Residential development will increase population while commercial and retail development will increase jobs in the study area. Mixed use development will increase both population and jobs. Traffic will increase as a result of all three. Development affects city budgets by increasing demand for municipal services; such as water, wastewater, and

street maintenance, emergency services, and trash pickup. In the interest of a financially sustainable community, any development that occurs must be of a standard in which its value produces sales and property tax revenue to both support the added expense to the citizens of Bryan as well as contribute to providing for municipal services. Commercial or residential growth in the community will contribute added revenue; the key to community-wide financial sustainability is that new growth contributes more than it costs to support and maintain.

The Envision Tomorrow model, used for this Small Area Plan, shows the result of a full build-out in the manner depicted by the Future Land Use Plan. Full build-out within the confines of the Future Land Use Plan would mean complete development of all developable areas to the highest density permitted in each land use category. It is important to note that modeling such a scenario is for forecasting purposes only and will not occur within the timeframe of this Small Area Plan. The forecasting model shows that there is more than enough capacity in the study area to accommodate the reasonably expected level of development pressure. Based on the Envision Tomorrow model, when fully built out the study area could accommodate an additional 65,000 residents (50,000 more than are currently in the area). This is more than double the projected level of population growth during the planning horizon of 2040. Likewise, there is capacity for far more office, retail and commercial space (which carry employment opportunities) than currently projected.

The fiscal impact analysis from Envision Tomorrow modeling suggests that developing the study area to full build out would negatively affect the city's finances. While this forecasting is not within the timeframe of the year 2040, it is nonetheless helpful for the city to know that full buildout of the study area could place economic pressure on the city if the Future Land Use Plan were followed exactly. The model shows $40 million in additional tax revenue annually, against $50 million in annual expenses. Note that the revenue projections were calculated with the assumption that development would generate income proportionally with the rest of the city. This incurred deficit would occur because low density residential use makes up the highest percentage of land use in the study area; residential property taxes currently only make up 25% of Bryan's general operations budget. Sales tax is as important as residential property tax; however, the proposed percentage of retail uses is not enough to build a sales tax base necessary to sustain the city's finances. Non-tax revenue, such as licenses and fees, grants, and charges for services, were also included in this assessment.

The balance of residential and non-residential uses is an important consideration. As the study area grows and develops, a number of considerations will be beneficial in balancing the proportion of residential to non-residential uses, including:

- increase the percentage of neighborhood service use to generate more sales tax;
- consider catalyst projects that would spur higher density mixed use development;
- increase the percentage of higher density residential development to generate more property tax;

- adapt the taxation system as this area develops;
- make up the difference through retail centers in other parts of the city; and/or
- consider development of a technical school (recommended in the Education Chapter) in the study area to strengthen existing and future educational synergy between Texas A&M's campuses (Health Science Center, RELISS, and the flagship campus), Blinn College, and Bryan ISD and increase student-oriented development.

It is difficult to forecast revenues and expenditures incurred by the study area aside from a full build-out scenario because revenues and expenditures will vary depending on what land uses develop first. The City should commission further scenario-specific fiscal impact assessment if additional study is desired.

Table 3 and **Figure 9** show the breakdown of the study area future land use recommendations. Overall, low density residential remains the largest land use accounting for approximately 34.2 percent. Industrial land use accounts for the second highest percentage (at 14.7 percent). The remaining land uses, with the exceptions of neighborhood services and mixed-use, each account for roughly eight to nine percent of the total land uses. This indicates that the Future Land Use Plan is diversified and accommodates a variety of different land use types. It should be noted that floodplain accounts for roughly six percent of the total land area and should be utilized as parks, trails, and open spaces.

Land Use	Acres	Percent
Commercial	414.6	9.0%
Floodplain	405.6	8.8%
High Density Residential	382.4	8.3%
Industrial	675.7	14.7%
Low Density Residential	1572.4	34.2%
Medium Density Residential	394.7	8.6%
Mixed Use	338.2	7.4%
Neighborhood Services	148.4	3.2%
Public/Semi Public	268.2	5.8%
Total	4600.2	100%

Table 3: Study Area Future Land Use Distribution

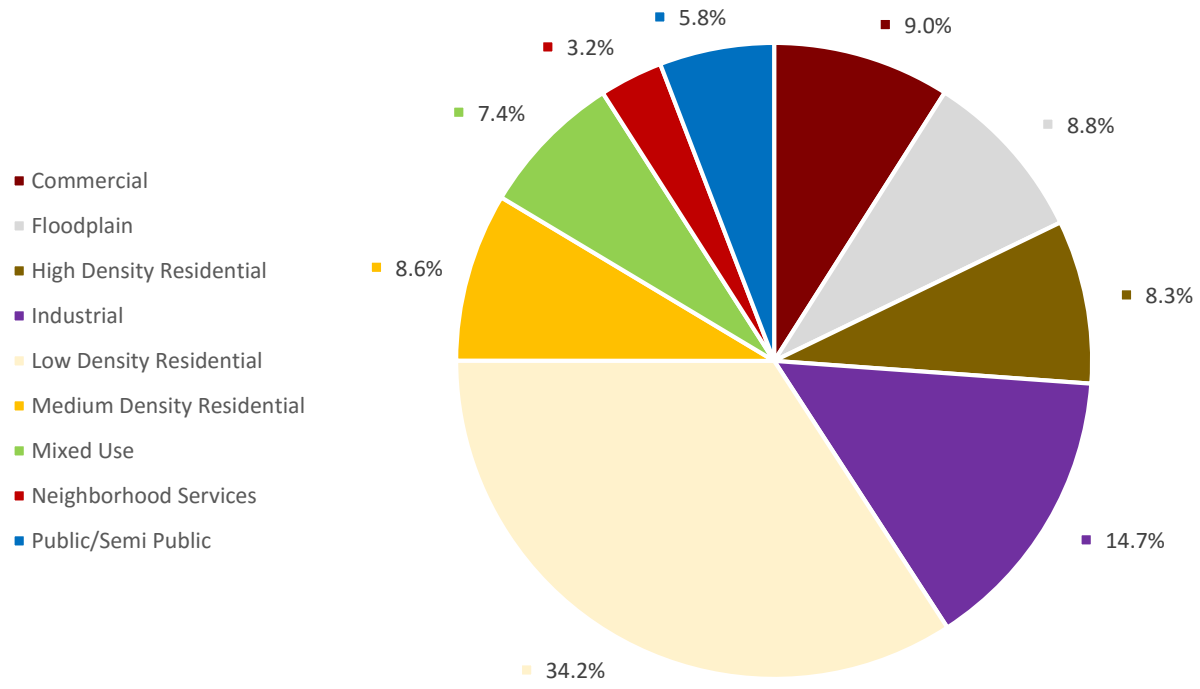


Figure 9: Study Area Future Land Use Breakdown

Housing

As discussed in the Market Assessment section, significant growth in residential development within the study area is anticipated. Over the next 25 years, the Bryan College Station Metropolitan Planning Organization (BCSMPO) projected that an additional 16,000 residents will call the study area home. The market assessment shows that additional growth pressures make it extremely likely that the area will grow beyond this projection.

The Future Land Use Plan projects that the study area can capture approximately 4.9 million building square feet of residential space over the next 25 years. This is a significant amount of new residential development and has the potential to redefine development patterns in Bryan. It is imperative that a diverse range of residential types be included within the study area.

The Future Land Use Plan includes a variety of residential land use types. The intent is that a diverse housing mix be created within the study area. Medium density residential is intended to account for townhomes, patio homes, zero-lot line homes, traditional neighborhood design, and other quality products; while high density residential is intended to account for apartment communities. Mixed-use areas are to incorporate housing and smaller retail/neighborhood services either in the same building or on the same property. Typically, this is in the form of horizontal mixed-use (where residential buildings are included intermittently with retail and office development), or vertical mixed-use where residential apartments are placed above first-floor retail. Ultimately, the diverse range of housing products and densities will create the rooftops necessary to support future retail development throughout the study area.

Low Density Residential

Low density residential is indicative of traditional neighborhoods within Bryan. It is envisioned that low density residential within the study area be high-quality, and a continuation of the development patterns occurring within the Traditions Development (open space, natural areas along corridors).

Medium Density Residential

Historically, medium density residential development in Bryan has taken the form of townhomes or two-story apartment complexes. Well-designed medium density housing can create stable and thriving neighborhoods. Medium density residential within the study area is envisioned to permit townhome and patio home developments. Townhomes are single-family attached dwelling units, and patio homes are generally single-family detached dwelling units on small lots. These types of residential options are growing in popularity among empty-nesters and young families without children due to the small yards and low maintenance. Medium density residential areas should require the provision of open space, parks, neighborhood amenities, or increased overall aesthetics in subdivision design.

High Density Residential

High density residential generally refers to apartments that are three or more stories in height. There are many areas reserved for high density residential depicted within the Future Land Use Plan. This is to provide both workforce and student housing. High density residential also helps to create the rooftops necessary to support commercial and retail activity. This becomes especially important if large areas of low-density residential are also desired. High density residential uses are often used as buffers between lower density neighborhoods and more intense commercial activity. Moreover, high density residential is desirable in or near mixed-use developments. To ensure long-term success from the community's point of view, it is imperative that new high density development be designed and constructed to the highest standard possible. Urban-style apartments should be encouraged. This apartment type typically has densities over 20 units/acre. In addition, parking areas are typically placed internally or to the rear of lots so that building fronts can be located adjacent to the street. Amenities, including common open space, pools, access to trails, and structured parking should be required.

Low Density Residential Examples

Single-Family Detached: 3-5 DUA

Single-Family Detached: 2-3 DUA

Medium Density Residential Examples

Townhome: 6-9 DUA

Patio Home: 4-7 DUA

High Density Residential Examples

Mixed-Use Apartments: 25-40 DUA

Apartments: 15-25 DUA

Transportation Framework

An updated City-wide Thoroughfare Plan is a part of Blueprint 2040. Relevant updates as they relate to the Small Area Plan include:

- Autumn Lake extended to Linda Lane as Major Collector
- Beck Street/Shiloh Avenue extending to State Highway 47 as Minor Arterial
- R.A. Galindo Parkway extending to Leonard Road as a Minor Arterial
- Jones Road extended to link State Highway 47 and N. Harvey Mitchell Parkway as Major Collector
- Linda Lane extending to N. Harvey Mitchell Parkway as Major Collector
- New Minor Arterial connecting W. Villa Maria to State Highway 21
- Interchanges along State Highway 47 at Beck Street, Leonard Road, and W. Villa Maria Road

Bryan's historical roadway network patterns have limited east-west connectivity. The transportation framework within the study area is envisioned to avoid this shortcoming. The proposed framework creates a network of north/south and east/west roadways that provide access to Harvey Mitchell Parkway (FM 2818) and State Highway 47 (**Figure 10**). This expanded network will better accommodate planned growth.

Small Area Plan Functional Classifications

Super Arterials (120'+ Right-Of-Way)

Super Arterials are four-to-six-lane divided, limited-access roadways. Their speeds are able to be much higher than other arterial roadways due to their limited-access nature. Within the study area, N. Harvey Mitchell Parkway is the only Super Arterial. This roadway will eventually be constructed as a four-lane divided roadway throughout its entirety. It will have grade-separated interchanges within the study area at Leonard Road and Villa Maria Road. While State Highway 47 is not within the study area boundary, it will eventually be designed as a limited-access highway with grade-separated interchanges at Leonard Road and Villa Maria Road.

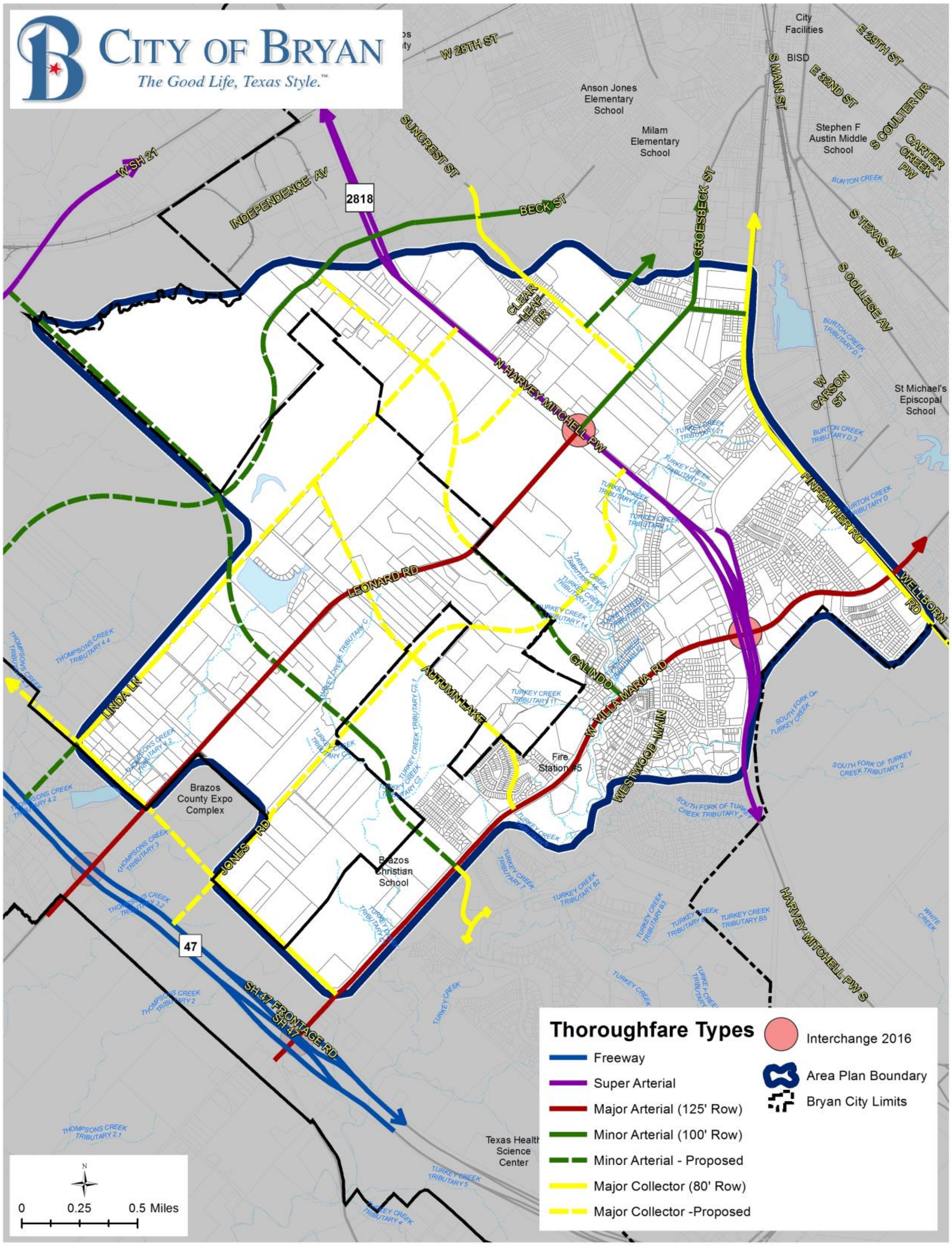


Figure 10: Study Area Thoroughfare Map

Major Arterial (120’ Right-Of-Way)

Major arterials are the second highest classification of roadways, in terms of sizing and capacity, in the study area. Major arterials in Bryan are generally four-to-six-lane roadways that are both divided and undivided, and have a 120’ right-of-way. Within the study area, both Villa Maria Road and Leonard Road are major arterial roadways. As development occurs, additional right-of-way should be obtained to ensure that the roads may to be built to their ultimate capacity as needed. Major arterials should be divided roadways with landscaped medians to achieve a higher aesthetic standard.

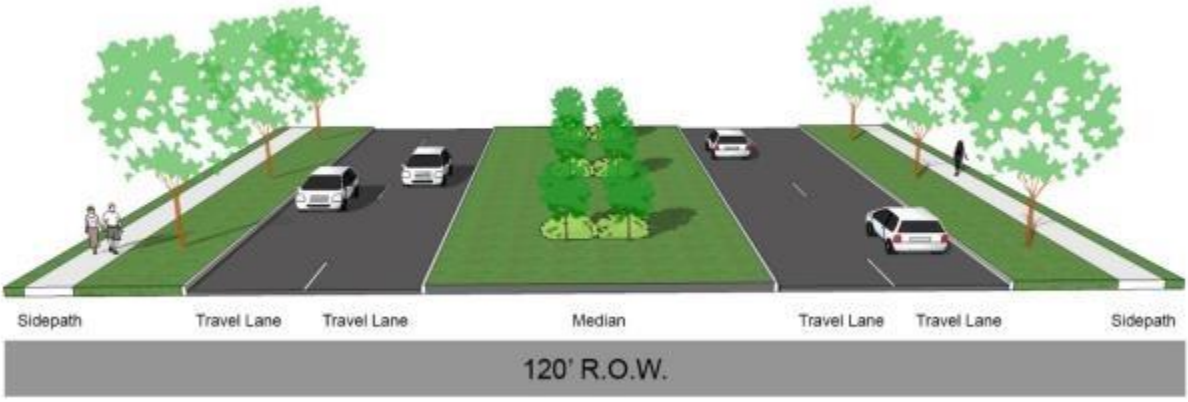


Figure 11: Major Arterial

Minor Arterial (100’ Right-Of-Way)

Minor arterials usually contain a 100’ right-of-way and can be either divided or undivided roadways. Within the study area, only R. A. Galindo Boulevard has been designed to a minor arterial standard, and it is only a small portion of the roadway has been built. It will continue to be extended as residential development occurs. Minor arterial roadways should be four-lane divided roadways with landscaped medians to achieve a higher aesthetic standard.

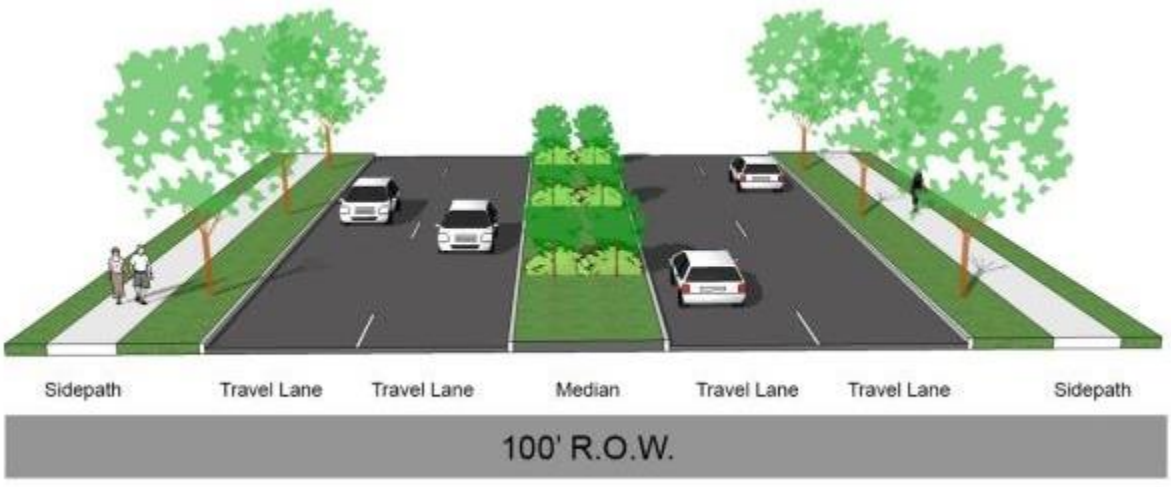


Figure 12: Minor Arterial

Major Collector (80' Right-Of-Way)

Collector roadways help to collect and disperse traffic from local neighborhoods to the arterial street network. A large system of collector roadways has been envisioned for the study area. While the exact location of these roadways may vary, it is important that the connections that they create remain. Major collector roadways are optimal for the inclusion of bicycle facilities.

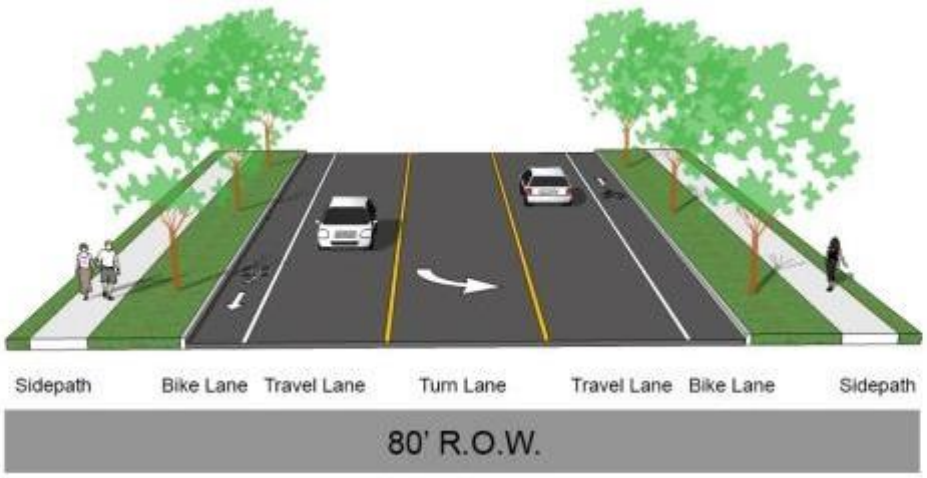


Figure 13: Major Collector

Multimodal Facilities

Throughout the public input process, one of the recurring themes regarding Bryan's transportation system was the need for alternative transportation modes. Bicycles are growing in popularity and are increasingly moving beyond their typical recreational use to become a viable mode of college town commuting. Bicycle facilities are generally best incorporated in urban areas due to the lower speeds of traffic. However, they can also be safely accommodated on suburban roadways, such as what is expected within the study area. This is becoming more apparent as both Federal and State entities are supporting bicycle facilities in roadway projects.

Pedestrian connectivity is also very important, especially in or around a college campus. Bryan has generally lacked adequate pedestrian mobility along many of its major roadways. A local mandate for complete streets, corresponding with compete streets planning and design, will better accommodate Bryan's bicyclists and pedestrians.

Generally speaking, the collector roadways are the best facilities to accommodate bicycle facilities. Collector roadways contain less traffic and have far lower speeds of traffic than arterial roadways. Bicycle and pedestrian facilities should be required as part of collector roadway

improvements and development within the study area. Arterial roadways, in some cases, do contain bicycle facilities, but generally only more experienced bicyclists use these facilities due to the higher speeds of traffic.

Transit

As the study area develops, it will be beneficial to begin evaluating opportunities to incorporate and expand public transit to the area. Currently, the Brazos Transit District operates both fixed route and on-demand service throughout Bryan and College Station, including Texas A&M University and Blinn College. The service is free to the students of both schools. Adding future mixed-use development and surrounding amenities to the routes would be a logical step.

Open Space and Trails

Research shows that there is a positive correlation between the amount of green space in a community and the physical and psychological health of its citizens. One of the greatest opportunities to ensure long term financial and community success of development in the study area is the incorporation of an open space and trails system. Developers and the community have the flexibility to create a system and work incrementally to implement new amenities in response to new development and funding due to the fact that much of the area remains undeveloped. Successful planning and implementation of public and private natural space amenities will define the study area and ultimately provide thousands of future residents' access to a connected and cohesive trail network.

Turkey Creek could also be the study area's greatest asset since it is a defining natural feature. At the current time, there are conceptual plans for the Turkey Creek Trail to run within the Turkey Creek riparian area. This trail will eventually link areas east of Harvey Mitchell Parkway to the Brazos River and its planned trail facilities. The many tributaries to Turkey Creek should be conserved and utilized as open space amenity features as development occurs. These tributaries and drainage areas should also be considered for installation of trail facilities where feasible. Conservation and enhancement of these natural areas will build value and differentiate the area from other residential and commercial offerings, in addition to allowing

adjacent neighborhoods and activity centers within the study area to connect to the Turkey Creek Trail and the regional trail system.

Portions of the trail system will likely be nature trails; providing a more natural feel and scenic view. In higher traffic areas, such as those connecting neighborhoods to the main Turkey Creek Trail system, concrete and asphalt should be used. Development standards for the areas should be implemented requiring that connections between neighborhoods and the trail network be provided. As new development occurs, trail areas should be acquired through fee simple dedication, easements, or fee-in-lieu of land dedication. Developers should also contribute to the construction of a proportional segment of the trail to help facilitate the creation of the regional trail network.

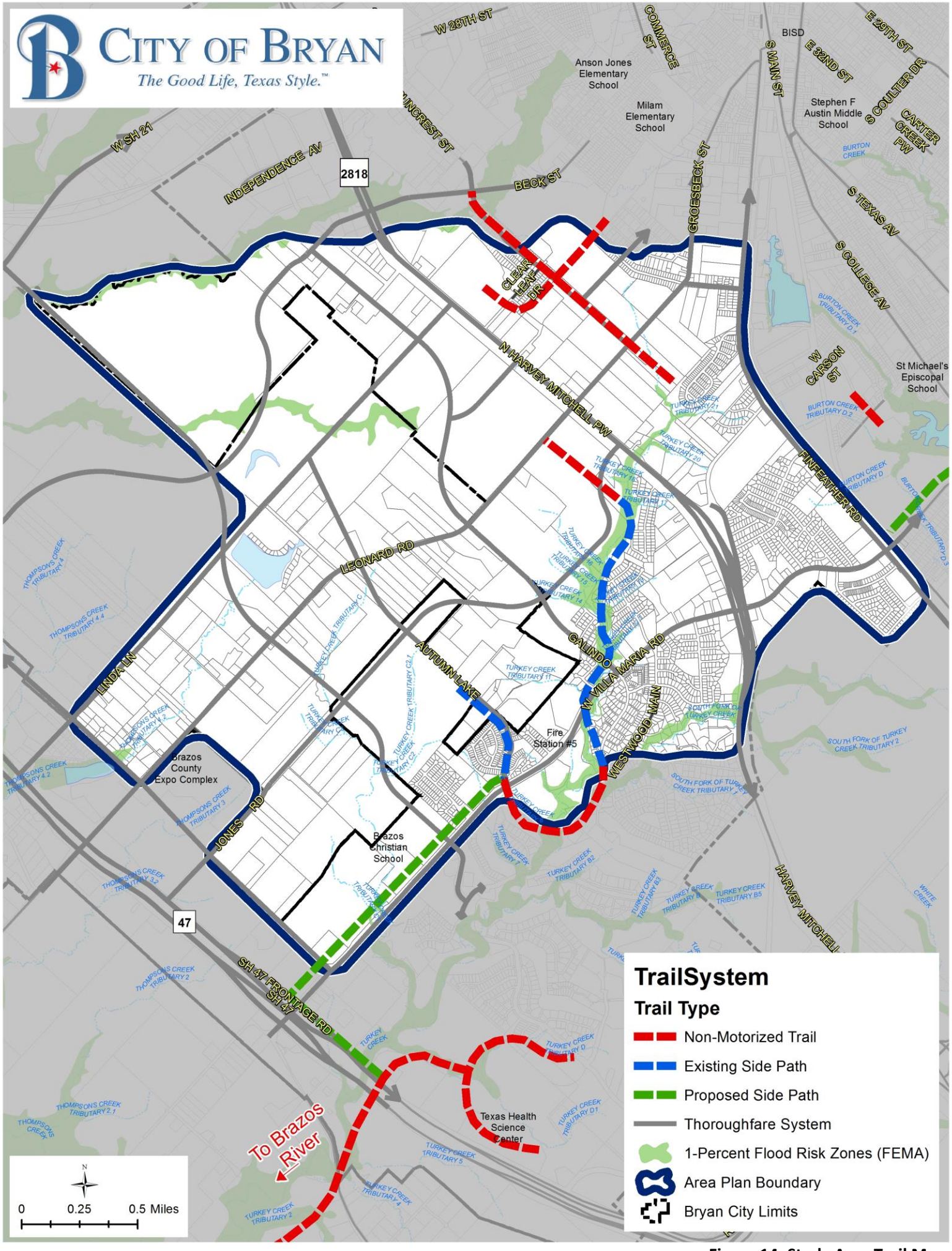


Figure 14: Study Area Trail Map

Zoning Evaluation

Figure 15 shows that a large portion of the study area within the City limits (shown in red) will require a change in zoning classification to successfully begin implementation of the area plan. Around the identified mixed-use opportunities, large tracts to the north, west, and south are currently zoned agricultural where mixed-use and medium to high density residential uses are projected. Along Harvey Mitchell Parkway, another key development area, there is substantial industrial and agricultural zoning in areas identified for commercial and medium density residential uses. Areas already zoned for low and medium density residential are prominent along Villa Maria Road and Finfeather Road and do not require zoning classification changes. In addition, several areas zoned as Planned Developments (PDs) will legally retain their zoning, per agreement with the City, regardless of depiction in the Future Land Use Plan.

The map was formulated by comparing existing zoning within the study area to the future land uses highlighted previously. The resulting map illustrates which areas are currently inconsistent with the Future Land Use Plan. The zoning classification for the properties highlighted on the map should be changed to reflect future land use recommendations; in the case of the study area, most uses that will need to change are either zoned Industrial or Agricultural. The map does not account for potentially-incompatible permitted uses within compatible zoning classifications, such as manufactured housing.

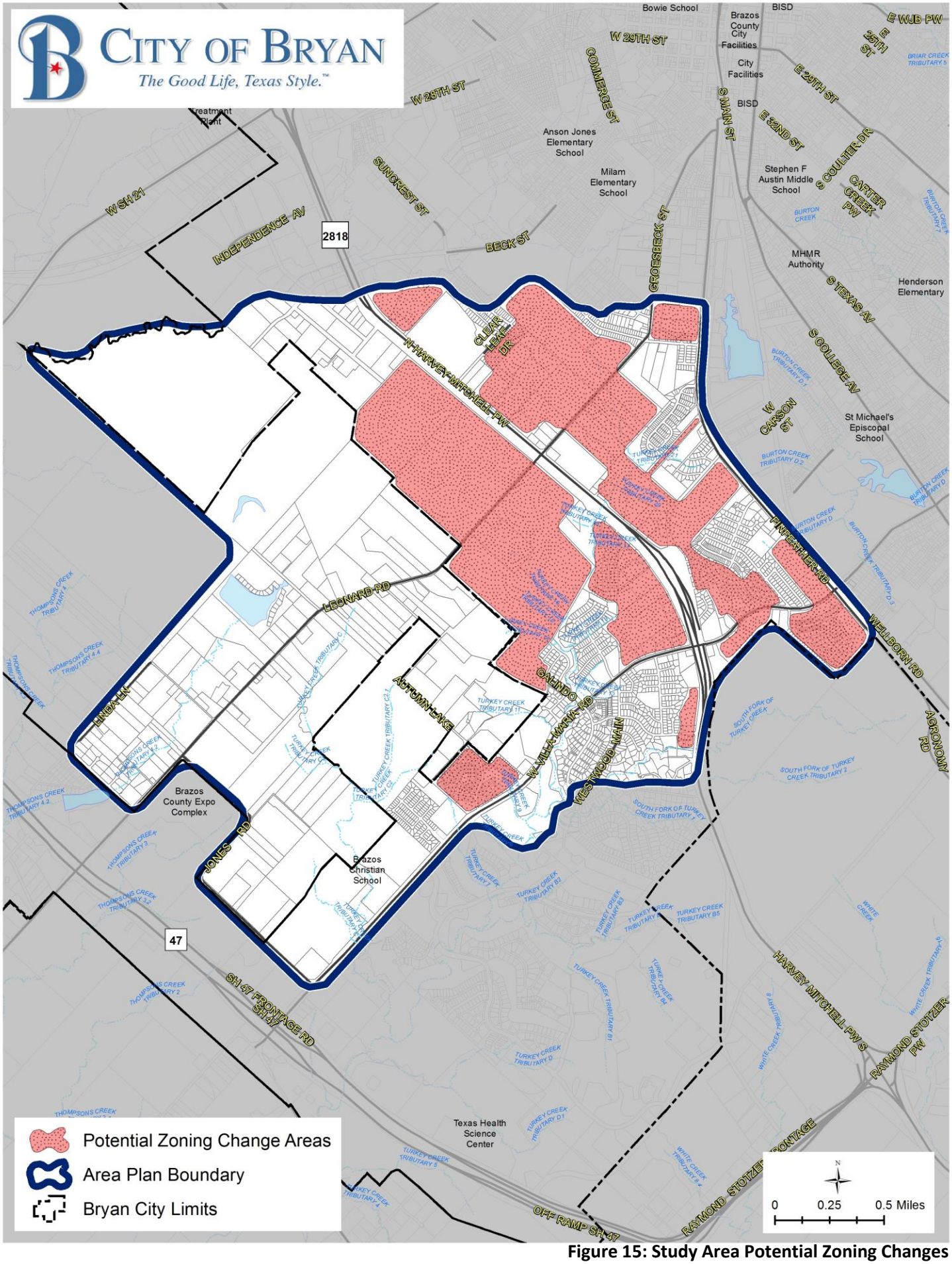


Figure 15: Study Area Potential Zoning Changes

Branding and Special Design Considerations

Branding is a key element in ensuring that a community's identity and sense of place is accentuated to residents and visitors alike. This is often done by using streetscape elements to make the community identifiable and unique. As the study area continues to evolve, there should be a continued focus on implementing new placemaking projects. The following recommendations have been formed by planning principles and proven over time. A number of these improvements can be relatively quick and inexpensive, but leave a lasting impression.

Promote Regional and Local Identity

Several challenges face the study area from an identity standpoint. Regional identity for the City needs to be improved along Leonard Road; as it has the potential to become a major western portal into Bryan. New gateway signage will notify drivers and pedestrians when they enter the City, and reinforce the unique character of the area.

Another key component is recognizing the unique sub district areas at a local level. The mixed-use development concept should be emphasized in the central portion of the study area. Initiatives and strategies to promote the local identity will be multifaceted, to meet the needs of all parts of the study area.

Reinforce Identity with a Family of Design Elements

Sense of place is achieved, in part, by providing unique or unexpected interactions. Elements to create these unique and unexpected interactions should be added along Leonard Road.

It is desirable that common elements are emphasized or repeated in design features and continue to be included with future streetscape and development projects. Additional public investment projects should reinforce the open space connections aimed at increasing the district's identifiable image. District markers, wayfinding signage, gateway features, lighting, roundabouts, common signage, retaining walls, banners, building materials, and landscape elements are encouraged where possible to help distinguish the area as a cohesive district.

Figure 16: Example of planters with common design theme

While the goal is to support the adopted design elements, flexibility should be practiced as not to discourage creativity on a site by site basis.

Branding is particularly important in West Bryan because it will enhance the development in the study area. This represents an opportunity to improve the overall perception of the City of Bryan (a recurring concern in citizen feedback).

Branding methods that would complement a growing West Area include furnishing substantial greenspace areas with decorative streetlights and pedestrian furniture (benches, refuse containers, etc.) to emphasize focal points, using specially designed wayfinding signage to direct people to key attractions within the area (mixed-use areas, shopping centers and the Brazos County Exposition Center), using City and institutional logos on banners and signs in key areas, and creating significant gateway treatments at major points of entry (Leonard Road at Harvey Mitchell and State Highway 47). It will be important for the City to pursue partnerships for thoroughfare improvements because a number of these roadways are maintained by TxDOT. **Figure 18** depicts recommended locations for branding projects. Signature streetscape, gateway signage, intersection enhancements, and special districts are identified.

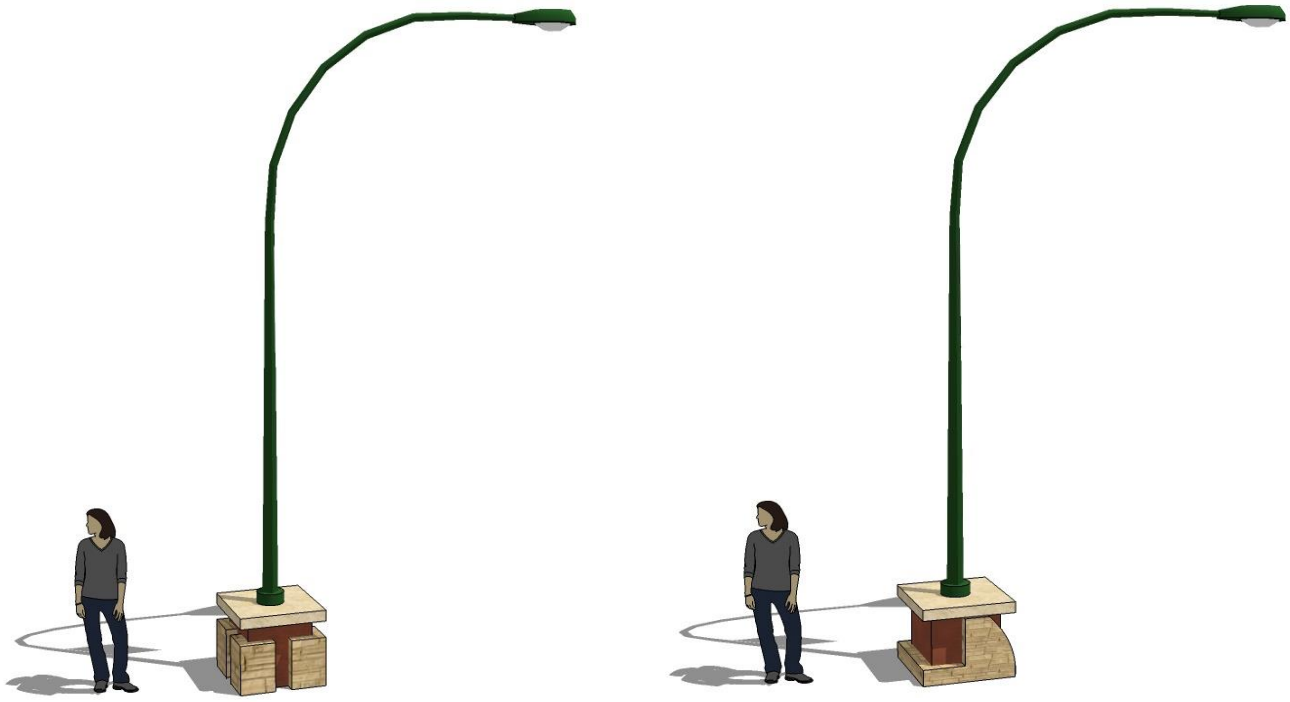


Figure 17: Example of street lighting with common design theme

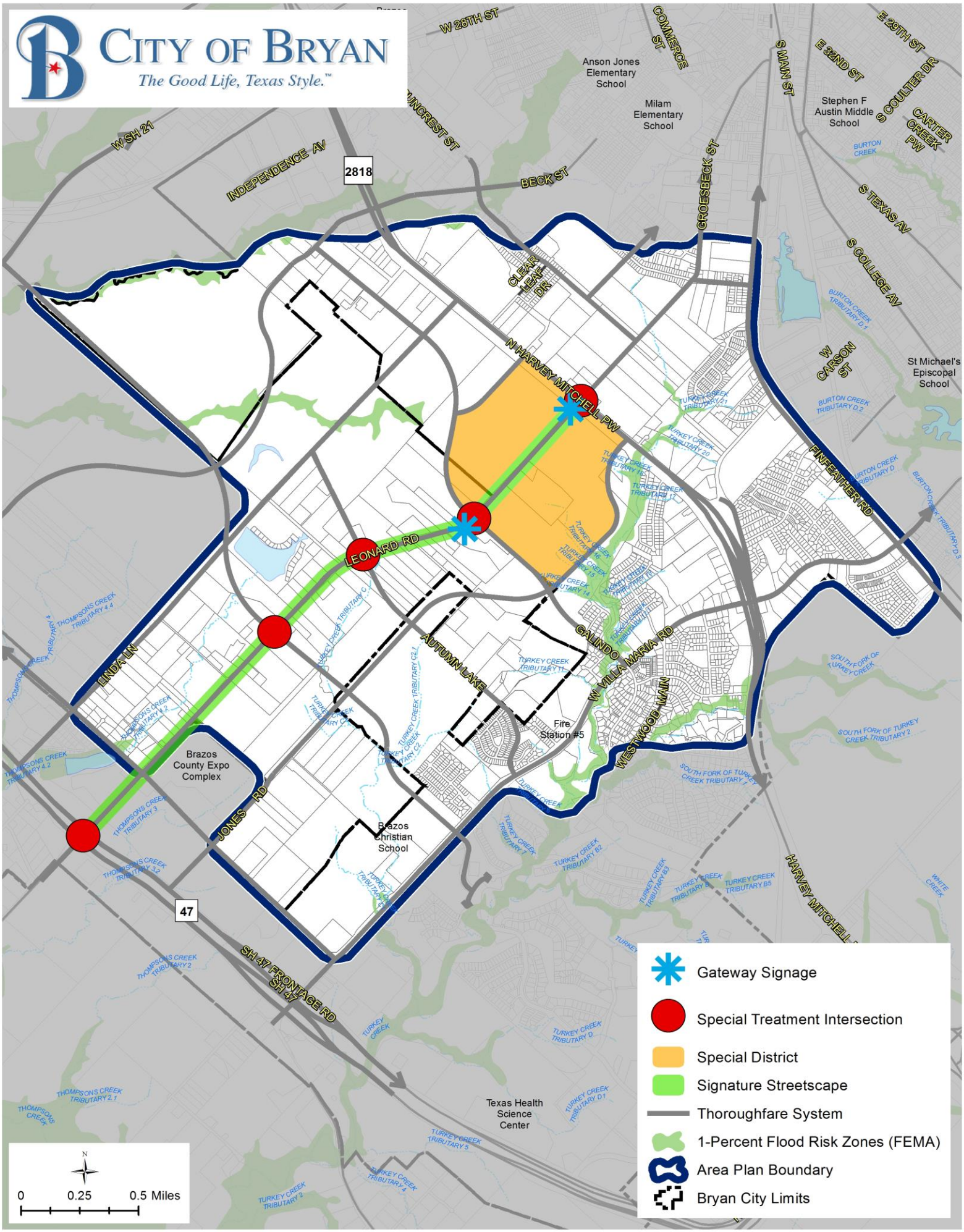


Figure 18: Study Area Branding Map

Special Treatment Intersection

Major intersections along Leonard Road, as depicted on the Small Area Plan Branding Map, should receive special attention for enhancements. Decorative lighting fixtures unique to the area, corner clips, pedestrian furniture, public art, and other enhancements should be added to these intersections.

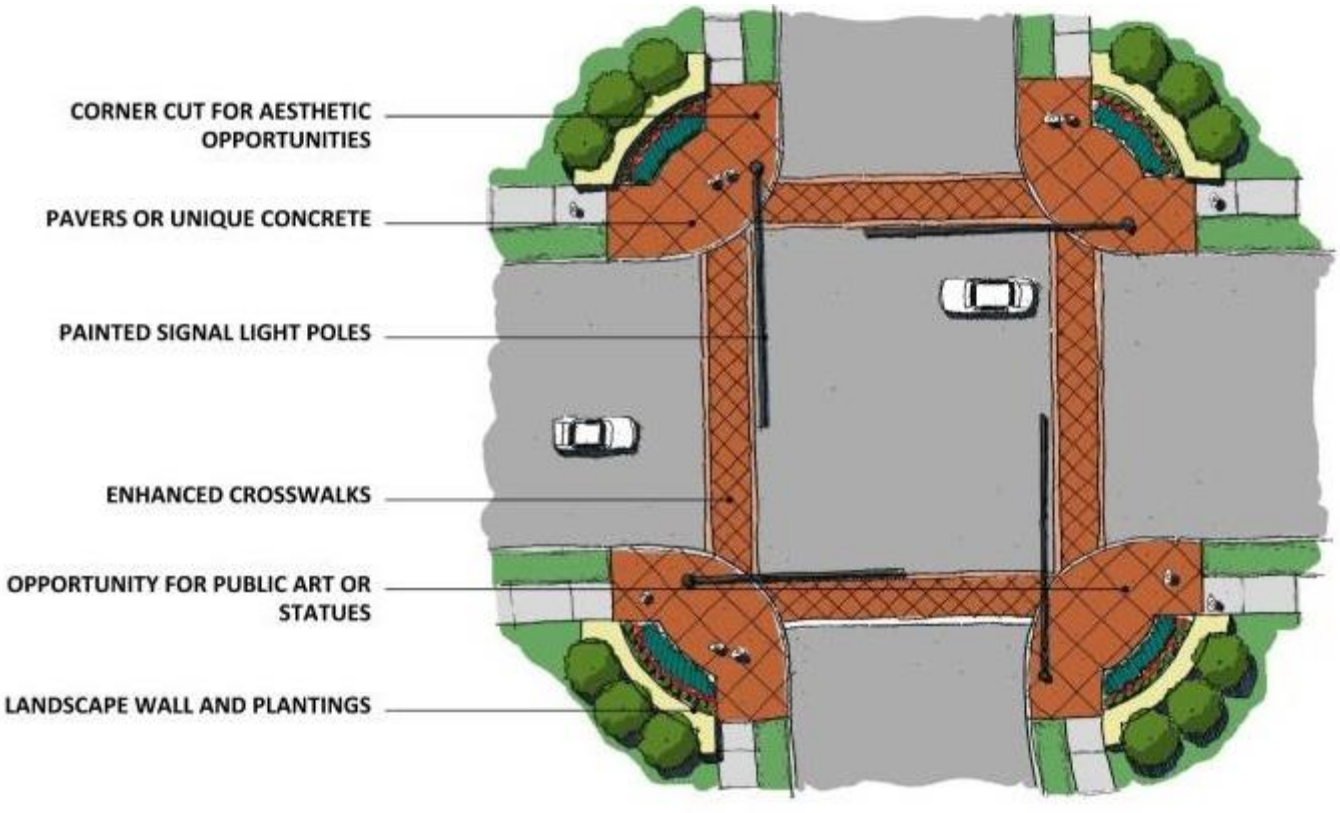


Figure 19: Example of Intersection Treatment Elements

Gateway Signage

The visual monotony that is often inherent to communities within a particular geographic area makes it appear that each one is just like its neighbor. This lack of design variety, especially along major corridors, tends to create anonymity, and it becomes difficult for people to know when they have left one community and entered another. Gateway signage can provide a strong sense of arrival to, as well departure from, the community. These features are the first thing drivers see when they arrive and the last impression they have when they leave.

Gateways should be included the mixed-use areas of the West Area; specifically, at Leonard Road at Harvey Mitchell Parkway and Leonard Road at Galindo Boulevard. These are the external boundaries of the special area that can define the West Area and its mixed-use center

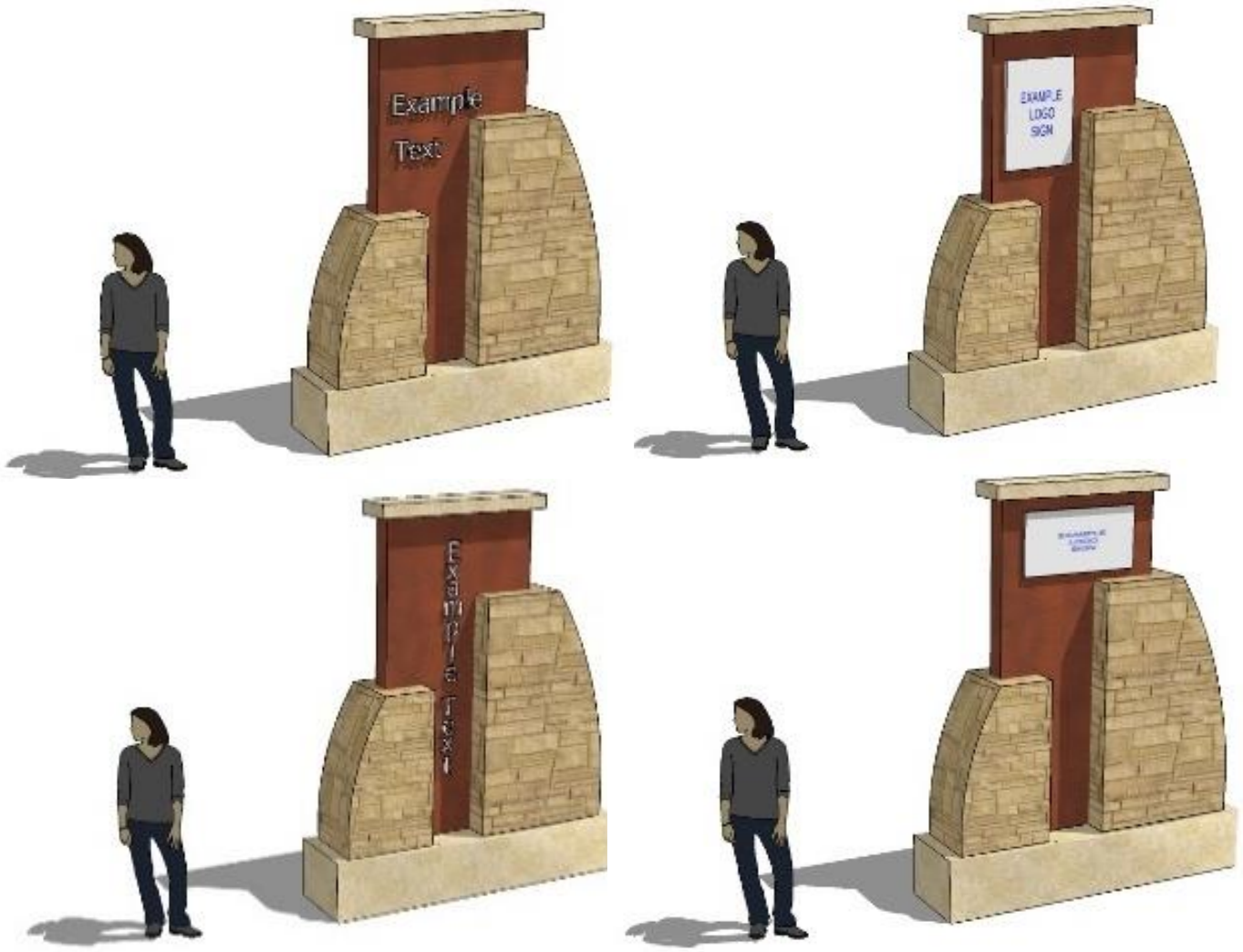


Figure 20: Example of gateway signs with common design theme

Wayfinding Signage

Wayfinding signage serves a great purpose in a city by creating brand identity and directing residents and visitors to an area's activity points while also allowing them to discover new attractions. Wayfinding is most effective when implemented in stages. Stage one wayfinding should be utilized at district entry points to direct visitors and residents to key destinations. Stage two signage should be located at the point of destination and serves to identify arrival and parking. Stage three signage is focused on the pedestrian realm and indicates entry points at the destination. Wayfinding signage could direct people to points of interest such as the Brazos Expo Center, BioCorridor, RELLIS Campus, Parks/ Trails/ Wildlife preserves or other amenities.

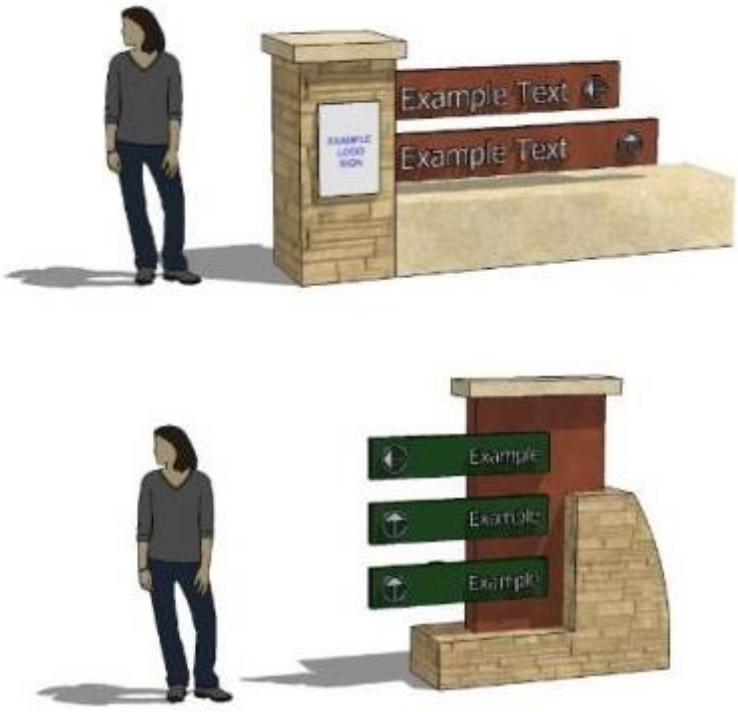


Figure 21: Example of streetscape design elements with common design theme

Special District

The special district represented on the West Area Branding Map is indicative of the core mixed-use area and peripheral land uses, including high density residential to the southwest. These areas should be cohesively tied together through special design that incorporates an identifiable theme.

Signature Streetscape

Major roadways within the study area should incorporate a higher degree of aesthetic enhancements. These suggested enhancements can be unique within the study area, and such brand aspects will set it apart from other development areas in the region. As new roadways are built and existing ones expanded, one percent of the overall project budget should be dedicated to aesthetic enhancements. Roadways should include landscaped medians, sidewalks, and bicycle facilities, where appropriate. The use of a continuous center turn lane should be prohibited to prevent conflicts with landscape medians.

Streetscapes will have the biggest visual impact on the study area, particularly along Leonard Road, as depicted on the Small Area Plan Branding Map. As roadways are expanded and built, roadway design standards (particularly pertaining to aesthetic design) should be significantly increased and adopted by ordinance. As mentioned previously, medians should be required on all new minor and major arterial roadways. The median should be used for landscaping and system designed and adopted to ensure it remains well maintained. The use of low maintenance materials, such as xeriscaping, is a viable option that many cities across Texas are now utilizing; minimizing the need to provide irrigation once plants have rooted.

Walls of exterior neighborhoods that are adjacent to arterial roadways should be constructed of masonry or stone. The use of solid wood fencing should be limited or prohibited, as wood fencing rapidly deteriorates and can become a noticeable eyesore when abutting highly visible roadways. The use of stone, brick, or masonry on exterior walls abutting arterial roadways will ensure that the corridor remains attractive long after the area is initially developed.

Pedestrian Considerations

As new development occurs, and as roadway facilities are built or expanded, particular care should be taken to the design of pedestrian facilities. It will be important that the area feel unique and pedestrian friendly.

Well defined pedestrian crossings should be a priority within activity areas along Leonard Road and near the identified mixed-use areas. Pedestrian orientation goes beyond simply painting stripes on the roadway to accommodate pedestrians. It involves intentional design that incorporates amenities and physical features that enable a pedestrian to feel that the facility was designed with their safety in mind. This will be particularly important along Leonard Road between the mixed-use areas on the northern and southern sides of the roadway.

Landscaped areas containing shrubs and/or shade trees should be included between the sidewalk and the roadways to create a periodically separated barrier. Enhanced and decorative sidewalks should be used in the highest activity areas. Accessible pedestrian signals (including audio and visual countdowns) should be included at traffic signals along Leonard Road and near The mixed-use and higher density areas.

Subdivision Design

Much of the residential development within the study area has yet to occur. Therefore, proactively defining how neighborhoods develop now will transform the area in the future. High and medium density residential should occur at nodes throughout the study area. Low density residential, however, will continue to remain the most predominant land use. It is important that residential land uses within the study area be of high quality similar to the standards found within the Traditions and ATLAS developments.

Low to medium density residential neighborhoods could incorporate a mixture of lot sizes. This variety can be obtained by setting a minimum lot size, but requiring a slightly greater average lot size throughout a subdivision. This would require developers to incorporate a mixture of lot sizes within the development. This diversity of lot sizes helps create a range of housing prices. Additionally, it is recommended that connections be required between subdivisions to create a connected street network. Finally, inclusion of amenities, enhanced landscaping on perimeter walls and integration of a trail network, where applicable, should be required by ordinance.

Figure 22: Subdivision Design Example

Infrastructure

The water and wastewater infrastructure available to serve the area appears to have sufficient capacity for future development. The most recent water and wastewater master planning was last updated in 2007, and although nine years have passed, conditions remain mostly the same.

As seen on **Figure 23**, 24 inch waterlines extend along Leonard Road and Jones Road, and tie into 12 inch waterlines on Harvey Mitchell Parkway and Villa Maria Road. These large capacity lines should be sufficient to provide adequate capacity and pressure for development. The only improvements indicated in the Water Master Plan near this area is the addition of an elevated water storage tank. Significant expansion of the system to the north would necessitate this improvement.

With the completion of the Thompson's Creek Wastewater Treatment Plant and the trunk sewer line, which parallels Turkey Creek to the south of the site, the study area should have sufficient capacity for development (See **Figure 24**). Expansion of trunk lines to the north of the plant should be planned to support future growth that is not within reach of the existing system.

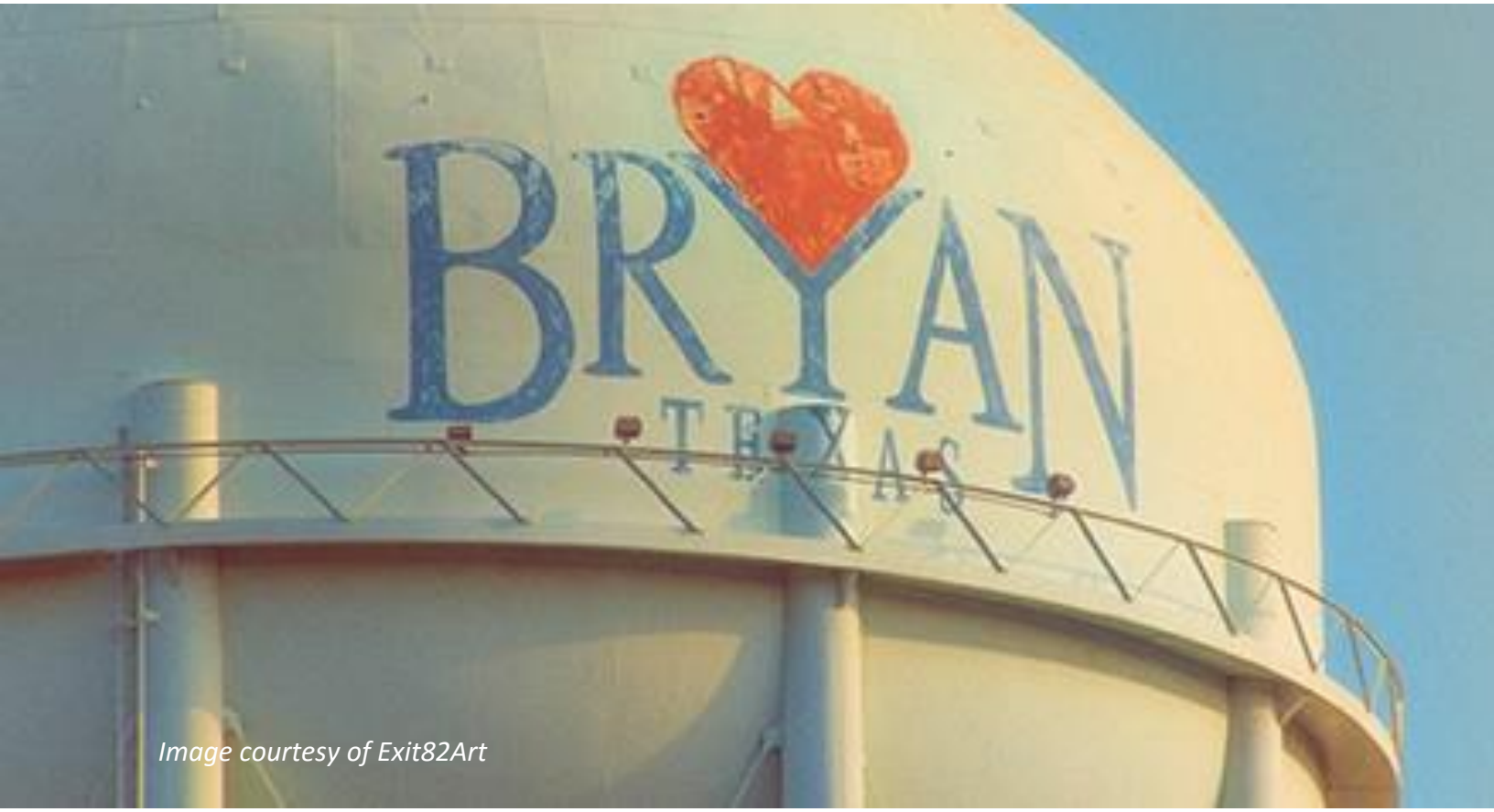


Image courtesy of Exit82Art

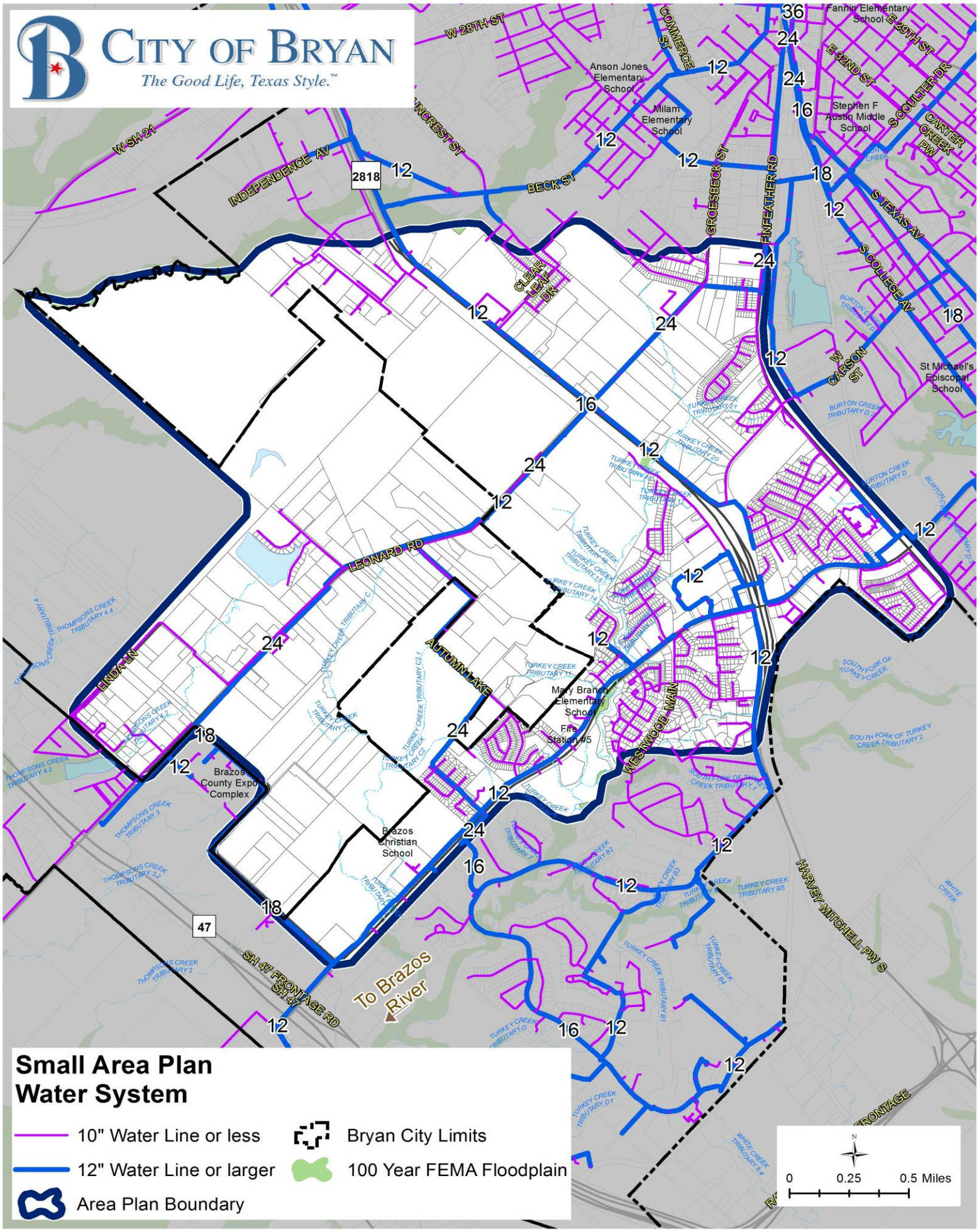


Figure 23: Study Area Water System

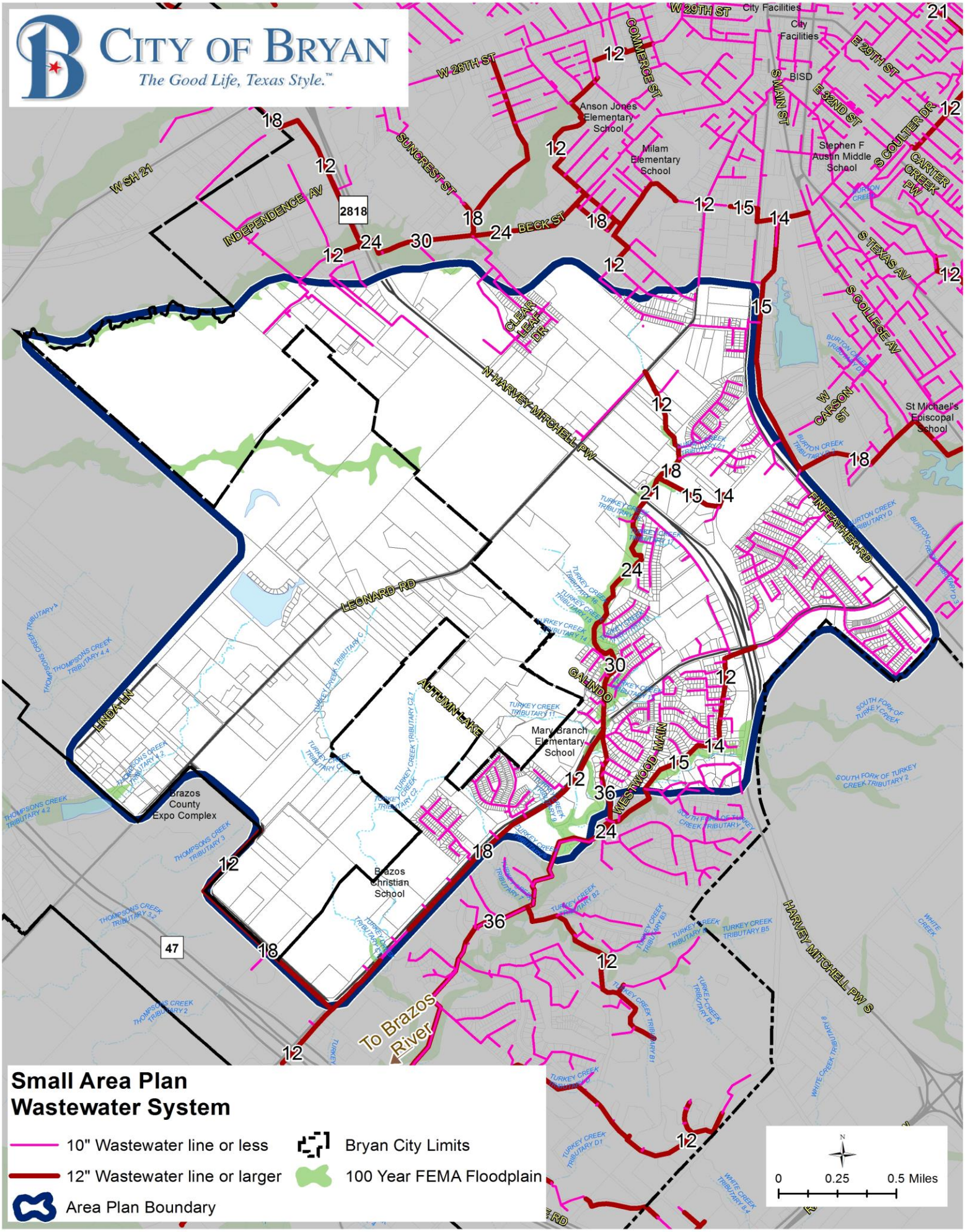


Figure 24: Study Area Wastewater System

RECOMMENDED POLICIES

The following recommended policies are related to the implementation of the West Area Plan.

Goal: Ensure that growth within the West Area Plan is connected, cohesive, and well-planned.

SA1 Protect the City's interests by proactively annexing ETJ areas within the West Area Plan.

SA2 Rezone areas within the study area to conform with the land use framework contained within the West Area Plan Future Land Use Map.

SA3 Attract a catalyst project within the mixed-use district at Harvey Mitchell Parkway and Leonard Road

SA4 Create a Bicycle Network Plan that incorporates on and off-trail facilities.

SA5 Conduct a diagnostic assessment of the parkland dedication ordinance to ensure that parks, trails, and open spaces are adequately created as development occurs.

SA6 Create roadway design standards for the Small Area Plan, specifically Leonard Road, to ensure that a higher standard for roadway construction is utilized.

SA7 Create a functional and well-connected transit network between the West Area and Texas A&M, and ensure that Brazos Transit District and Texas A&M shuttle bus service expands service to include key destinations within the area.

SA8 Creating a Branding Plan for the West Area Plan.

SA9 Create and enforce tree preservation and floodplain dedication ordinances to ensure that natural features are preserved as development occurs.

BLUEPRINT 2040

BRYAN ★ TEXAS

FREESE AND NICHOLS